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## Leading Articles

The Influence of Somatose Upon the Secretion of  
Breast-Milk, RICHARD DREWS, M.D.

The Treatment of Malarial Fevers,  
CLARENCE J. MANLY, M.D.

Diet in the Chronic Catarrhs of the Gastro-In-  
testinal Tract, BOARDMAN REED, M.D.

The Much-Abused Nose, F. T. ROGERS, M.D.

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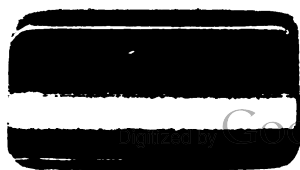
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# PRACTICAL MEDICINE

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## Original Communications.

### *The Influence of Somatose Upon the Secretion of Breast-Milk.*

By DR. RICHARD DREWS,

Specialist for Diseases of Children, Hamburg.

ALL authors are agreed that the natural and best nourishment for the infant is constituted by the milk of the mother, since it contains everything which the child requires for its nutrition—not only for equalizing the income and output of the organism, but for its development and the increase of the total bodily weight—and since it maintains the physiological functions of the organs, and provides the most favorable conditions for the growth of the organism to a state of normal completeness. Unfortunately the number of mothers who are able to nurse their offspring is comparatively small, because, owing to chronic diseases, chlorosis, anemia, or feeble development they are unable to bear the strain of lactation, because the breasts, which have been retarded in development by compressing clothing, cannot supply sufficient milk, or finally, because social conditions prevent the woman from nursing her child.

Still smaller is the number of mothers who are able to suckle their children un-

til the period of weaning, that is, until the time of transition to a mixed diet, inasmuch as it frequently happens that the secretion of milk is arrested early in the period of lactation in consequence of anemia following losses of blood during pregnancy, or delivery, or in consequence of insufficient nutrition, weakness resulting from pregnancies occurring in rapid succession, diseases developing during lactation, as for instance, gastric and intestinal catarrhs, or finally, sudden and violent mental excitement. The symptoms associated with diminished or arrested lacteal secretion are in most cases: Pains in the back, a feeling of tension in the breast, especially during suckling, headaches, occurring particularly in paroxysms, loss of appetite and marked thirst, a sensation of pressure in the stomach, muscular weakness, visual disturbances, as bright spots before the eyes, diplopia, and lastly, anemia and emaciation.

Since olden times various means have been recommended for restoring a free



flow of milk, as for example, eggs and milk, cocoa, gruels, malt beverages, teas of fennel and aniseed, milk powders, and restriction of fats in the food. All these remedies, however, do not have any direct influence upon the mammary glands, and women, who often partake of the fluids recommended in incredibly large quantities, suffer much from illness to the disadvantage of their offspring, owing to the disproportion existing between their weakened digestion and the invigorating and nourishing diet. The long felt want for a remedy of this kind has been filled by Somatose.

In the *Centralblatt f. inn. Medic.*, No. 23, 1896, I reported some observations regarding the influence of Somatose upon the secretion of the mammary glands in nursing women, and stated that in twenty-five cases which I had observed for more than four months, I had derived successful results from the administration of Somatose, one teaspoonful four times daily, in milk, cocoa, soups, etc.

It was found impossible either to promote an adequate lacteal secretion, or to restore a sufficient flow of milk in cases in which owing to certain diseases, mental perturbations or other disturbances, it threatened to become arrested in the early period of lactation, and in which the characteristic signs of suspension of the secretion were present, such as headache, pains in the back, breasts, emaciation of the mother and flabbiness of the breasts. Thus the period of lactation could be considerably prolonged. I regard this increase of the lacteal secretions as due to a direct influence of Somatose upon the mammary gland, and not as the result of its stimulating effect upon the appetite enabling the mother to partake of a larger amount of food, because on discontinuing the Somatose

the disturbances recurred in a few days, even though the appetite and amount of ingested food remained the same, and because the effect of Somatose is manifested so rapidly and promptly, that no time has been afforded for an improvement of the general health.

My observations have been confirmed by Wolfe, of Philadelphia, and Taube of Madrid, who obtained equally good results.

Since then I have continued my investigations, and have now at my disposal about one hundred personal observations and about fifty observations from other sources. Aside from this, I have addressed inquiries, to colleagues who have employed Somatose for the above purpose, and received the following reports:

Prof. Freiherr v. Rokitansky wrote me from the Obstetrical and Gynecological Clinic of Gratz, that he had employed Somatose in seventeen cases of nursing women having an insufficient supply of milk, the results being good in eleven, slight in three and unsuccessful in three cases. Dr. Temesvary used Somatose in a series of cases which he intends to report himself, but informed me that Somatose proved an excellent galactagogue in several cases. Dr. Winkle was unable to form a positive opinion as to the specific action of Somatose upon the secretion of the mammary glands, owing to the short period that the women remained in the clinic after delivery; but in view of the fact that in a few cases of insufficient lacteal secretion it seemed as if the sudden improvement was directly connected with the administration of Somatose, he believes that the possibility of an immediate influence of Somatose upon the mammary glands cannot be arbitrarily excluded.

Some very interesting observations

have also been reported to me by Dr. Gagliardi-Magliano of Toscana. A positive result was obtained by him in the case of a nursing mother who during former pregnancies had a very scanty secretion of milk, while during her last pregnancy under administration of large doses of Somatose for the last two weeks an abundant secretion was established as early as twenty-four hours after delivery. In some other nursing women, of the poorer class, who had been weakened by malaria and were in an anemic state, equally good results were secured: Improvement of the general health, digestion and appetite, healthier color, especially of the mucous membrane, increase of muscular power and bodily heat, and particularly an increased secretion of milk, which was not only revealed by objective tests, but by the amelioration in the condition of the children. Gagliardi thinks that the effect of Somatose is attributable to a beneficial modification of the vascular supply, and that the breasts being supplied with richer blood experience a beneficial stimulus, become better nourished and, therefore, functionate better.

Finally, Dr. Joseph Lewy, of Berlin, editor of "*Medico*," has made some interesting experiments with Somatose which are published in No. 51, 1896, of his journal, as follows:

"Furthermore, the administration of Somatose after childbirth seemed to me indicated, especially in lying-in women whose bodily strength had been severely taxed by frequent pregnancies, difficult labors, or other causes. In these cases Somatose proved of service as a promptly invigorating nutriment, which I was glad to prescribe frequently. The importance of Somatose in this field was first placed in its proper light by a contribution from Drews (Ctbl. f. inn. Med.,

June 6, 1896) who first directed attention to the favorable influence which Somatose exerts upon the secretion of the mammary gland in nursing women. I availed myself of the first opportunity that presented to give this subject my attention, and even in the first case was able to prove experimentally that Somatose has a markedly stimulating influence upon the secretion of milk. As soon as the preparation was discontinued the quantity of milk diminished, even where there had been no change in diet, especially as regards the taking of fluids. This condition occurred so regularly and distinctly that the young mother soon would no longer consent to a suspension of Somatose, in the interest of her child, so that I had to content myself with the fact established on three occasions. In the other cases observed by me, with but few exceptions, the influence of Somatose upon the lacteal secretion was also unmistakable. Unlike Drews, however, I was never successful in restoring an arrested secretion when all the signs peculiar to this condition were present. The question as regards this effect of Somatose appears to me of so much importance in the nutrition of infants that I would urgently counsel my colleagues to investigate further these results. Probably it will become possible, by administration of Somatose, to preserve to the infant the natural food derived from the mother's breast which is best adapted for his needs, in cases in which otherwise it would be necessary to resort to artificial feeding."

According to my observation, it is possible, even when all signs of arrested lactation are present, to restore a sufficient secretion by means of the administration of Somatose, provided that the breasts are properly developed and no

other diseases exist which would contraindicate suckling.

I would, therefore, recommend the use of Somatose in all cases where an arrest in the secretion of milk is impending in

consequence of various diseases, mental excitement, and other disturbances, before resorting to artificial nutrition and exposing the child to the risks by which it is attended.

## *The Treatment of the Malarial Fevers.*

By CLARENCE J. MANLY, M.D., Louisville, Ky.

THE malarial fevers, while all depend upon the same specific cause, occur in several clinical forms, which may be classed in four groups:

1. Intermittent fever, characterized by the paroxysm, which typically consists of the three stages of chill, fever, and sweat and the intermission, during which the temperature is normal and the patient in comparative comfort.

2. Remittent fever, in which the temperature never reaches normal, consisting of a series of exacerbations and declines.

3. Pernicious fever, with severe symptoms and rapidly fatal end.

4. Malarial cachexia, with anemia and enlarged spleen, due to chronic infection.

The researches of Laveran, followed by those of Marchiafava and Celli and many other observers, have enabled us to attribute a common origin to all these forms and to diagnose them accurately, by showing that the causative factor, the plasmodium malarie is always present in the blood of patients affected with malaria, and can there be demonstrated in case of doubtful diagnosis. They have also elevated the treatment of malaria from the domain of empiricism to that of scientific therapeutics, by showing that the specific, quinine, in solution in the blood acts as a direct poison to the

malarial organism with which it there comes in contact.

Certain indications are common to all forms of malarial infection. These I shall mention first, after taking up the special points connected with each type which demand attention.

Cinchona and its products are the specifics for malaria, and of these quinine is the type. It may be administered by the mouth, by rectal injection, in suppository, hypodermically, by intravenous injection.

For administration by the mouth the sulphate of quinine is usually prescribed. In ordinary cases it is best given in the form of pills or capsules to conceal the taste. These should be fresh and easily soluble, so as not to pass into the intestine undissolved, as the alkaline juices there form an insoluble precipitate with quinine, preventing its absorption. It is taken up from the stomach and circulates in the blood as the chloride. Very large doses are apt to irritate the stomach, consequently when a very strong impression is desired it is better to divide the dose and give part by the stomach and part by the rectum or hypodermically. When there is urgent need for an immediate effect it is better to disregard the taste and give in solution, which can be effected by the addition of aromatic sulphuric acid in the proportion of one minim to

each grain of the alkaloid. When in solution no vehicle will mask the taste, but if necessary the back of the tongue can be painted with a two-per-cent. solution of cocaine to destroy this sensation.

In some cases, especially with children, the patient is unable to swallow pills or capsules. Here the salt can be given in suspension and the taste modified by some vehicle. Acid is not to be added, as it will form a solution and the taste will not be masked. Licorice and yerba santa are excellent vehicles for use in these cases; for example:

**R** Quinine sulphate, 16 grains;  
Syrup yerba santa comp., 2 ounces.

**M.** Sig.: Teaspoonful three to five times a day, for a child of one year.

Chocolate is another vehicle, in which the tannate is often given in the form of confections. Though tasteless, the tannate is of very low alkaloidal strength (22.6 per cent.), hence a large dose is required.

Quinine is readily absorbed from the rectum, and may be given either in enema or in the form of suppository. Ten to thirty grains may be used, dissolved with the aid of acid as above, and given in starch water. Opium may be added to prevent the tenesmus which is unfortunately apt to ensue. Suppositories are made in the usual way, with cocoa butter as the basis.

Hypodermic injections of quinine are apt to be painful, but the action is prompt and decided, and this means of entrance is particularly valuable in cases of coma, irritable stomach, etc. Injections into the calf of the leg seem to be particularly painful. The point of election is midway between the great trochanter and the tuberosity of the ischium. Probably the best salt for use by this means, when obtainable, is the (unofficial) carbamide hydrochlorate or hydrochlorate of qui-

nine and urea, which dissolves readily in its own weight of water, and is unirritating to the tissues even in concentrated solution. The bisulphate has been recommended, with the addition of tartaric acid (one grain to five of quinine) to the solution to maintain the acid reaction and prevent precipitation in the tissues by the alkaline juices. The hydrochlorate is much used, on account of its solubility. Should all these be obtainable, the sulphate can be utilized in the method recommended by Dr. George Dick, as follows: The solution is made in the strength of ten grains to one fluidrachm, so that a hypodermic syringe will contain from three to five grains. The capacity of the syringe should be accurately known. The salt is mixed with distilled water, adding dilute sulphuric acid drop by drop until the whole is dissolved, and then adding water to make the required quantity. The injections should be made deeply. The resulting pain can be alleviated by hot applications.

The method of intravenous injection devised by Baccelli is indicated in desperate cases, where other avenues fail; and its use under these circumstances has been attended with brilliant results. The solution he recommends is as follows:

**R** Quinine hydrochlorate, 15 grains;  
Sodium chloride, 12 grains;  
Distilled water, 2½ fluidrachms.

Having been boiled and filtered, the solution is injected preferably into a vein of the leg as being some distance from the heart, concentrated solutions of quinine being direct local depressants to the heart. The strictest asepsis should be practiced.

The enormous doses of quinine which were once given have been shown to be excessive. Binz, by experimentation, showed that in solution of 1:20000 quinine was quickly destructive to organisms

similar to the plasmodium malariae, and a dose of five grains will make a solution in the blood of a strength approximating 1:16000. Clinical experience also has proven that in the milder forms of the infection from fifteen to thirty grains between the paroxysms is sufficient to arrest them. In the pernicious form, however, it must be pushed for its effect. The hypodermic dose should be about one-half that by the mouth, and when used by the rectum the dose should be somewhat more than by the mouth. For children, Rotch gives the dose as half a grain for six months and under, and at the rate of one grain for each year of age over that, up to the adult dose. In some persons even small doses of quinine produce very unpleasant effects, in the shape of eruptions, tinnitus aurium, vertigo, and other symptoms of excessive cinchonism. In some of these cases if quinine can be used in minute doses it will have the same effect as the full doses in individuals without the idiosyncrasy. In other cases some other means must be adopted to combat the infection. Of these, arsenic is valuable in the more chronic cases, but is of comparatively little benefit in acute malaria, a very large dose being required for any effect at all. Methylen blue, in dose of one to four grains, is one of the best substitutes for quinine. Narcotine, two to five grains three times a day, is recommended by Ringer as having marked anti-periodic effects. Certain drugs are useful to combat the unpleasant effects of cinchonism. Morphine, one-sixth of a grain hypodermically, with one one-hundredth of atropine, not only does this, but acts as an adjuvant to the quinine in curing the disease as well. Ergot and the bromides, given with quinine, mitigate the unpleasant effects. A convenient method is to give the quinine dissolved in dilute hydrobro-

mic acid. It is now seldom necessary to resort to these means, as the modern method of smaller dosage has done away with the worst of the effects which used to be so pronounced. All the succedanea of quinine are vastly inferior to it in effectiveness, and should be adopted only in the presence of direct contraindication to that drug. The fear of producing an abortion should not prevent the use of quinine in pregnant women, as it has little or no effect upon the uterus except at term. The malaria, if not checked, would more likely cause abortion than quinine.

*Intermittent fever* is at once the most common form of malaria and that most amenable to treatment. If seen during a paroxysm the administration of quinine should be delayed, as it will not abort the attack, but will rather increase the discomfort. A hypodermic of morphine at this time will do much to mitigate the severity of the symptoms; or one-fifth of a grain of pilocarpine hypodermically will have a like effect. If the chill be severe stimulants may be needed, with friction, hot applications, etc. During the fever ice, ice-water and acidulated drinks may be used to allay the thirst, with spongings and the ice-coil if the temperature should become excessive.

It is during and after the sweating stage that the specific treatment is to be carried out, and it should be pushed energetically with a view to warding off, if possible, the next paroxysm. Aside from the discomfort, there are several important reasons why the disease should be promptly checked: (1) The pernicious form is nearly always preceded by one or two attacks of the intermittent variety, and if promptly treated might be aborted; (2) each paroxysm is accompanied by a disintegration of the corpuscles of the blood, causing progressive anemia, and is



injurious by the visceral engorgement which also accompanies it; (3) while individual attacks usually yield promptly, there is a great proneness to relapses, and this increases the longer an attack is allowed to run on.

It is usual to begin the treatment with a cholagogue, such as calomel in four quarter-grain doses a half-hour apart, followed by a saline. The idea is to restore the function of the liver, deranged by the malarial poison. The catharsis is also supposed to aid in the absorption of the quinine which is to follow. The efficacy of this preparatory treatment is disputed, however, by such eminent and careful observers as Osler and Austin Flint. With the experience of a long series of researches, Flint claims that the use of cathartics not only is of no benefit, but that it actually antagonizes the interruption of the paroxysms. Where constipation exists, however, mild laxatives are indicated.

The quinine may be given either in a single large dose, or in smaller doses, as five grains, repeated several times a day, and should be kept up until the paroxysms are interrupted. After this the patient should be fortified against the "septenary periods" by giving the quinine on the sixth, thirteenth and twentieth days, thus accomplishing a sort of "fractional sterilization" of the blood. If enlarged spleen and anemia persist, as is especially true in long-continued cases, ergot is of benefit, together with tonic measures—iron, arsenic, strychnine, etc.—as follows:

**R** Reduced iron,  
Quinine sulphate, of each 48 grains;  
Arsenous acid, 1 grain;  
Oil black pepper, 15 drops.

Mix. Make pills No. 24. Take one pill after meals for a month or so.

The regular distinct paroxysms may give place to simply a daily fluctuation of

heat. This, indicating that the system is still infected, would call for continued active treatment.

As it takes from three to five hours for a dose of quinine by the mouth to attain its full effect, it should be given at least this length of time before the next paroxysm is expected. Otherwise it is best to wait for the next remission.

*Remittent fever.*—Here the quinine is to be pushed in the remission. The organisms seem to be in a condition of lowered vitality at this time, and the treatment has a more pronounced effect on them; indeed, in some cases it is the only period in which remedies seem to have any effect at all. If the remission is not distinct the thermometer may be used to identify it. The stomach is often quite irritable, preventing treatment *per os*. Here one of the other avenues must be used. If there is bilious vomiting, it should be encouraged by warm water until the stomach is emptied, and then the stomach quieted by abstinence from food and the administration of lime-water, and if necessary opium. The strength must be maintained, giving food and stimulants *per enema* if necessary. The same septenary precautions and after-treatment by tonics would apply here as in the intermittent form; also the use of sponging, etc., to combat high temperature, and other palliative measures.

In many cases Warburg's tincture seems to have an admirable effect, possibly due in some degree to the combination of aromatics with the quinine. It is especially recommended by Maclean, who declares it to be superior to quinine alone in remittent and pernicious fever; especially so in those varieties characterized by excessive congestion. It should be given in the dose of a half-ounce, undiluted; repeated once, if necessary, after two or three hours.

*Pernicious malaria* differs from the other varieties only in the extreme severity of the symptoms, the great prostration, and the imminent danger of a fatal outcome. These call for prompt and most energetic treatment. Cinchonism must be produced as rapidly as possible, and as the variations in temperature are exceedingly irregular, quinine must be used at once and pushed at every opportunity till its effect is obtained, large doses being necessary. The stomach can rarely be used, and it is here especially that the method by hypodermic injection and Bacelli's method by intravenous injection serve their most important purpose. The great depression is combated by strychnine and digitalis. In the algid stage reaction can be invited by the use of morphine hypodermically, the application of heat, or brisk rubbing with ice.

The heart and nutrition demand attention. For the former nothing is better than strychnine hypodermically *pro re nata*, in dose of one-thirtieth of a grain. The patient must be sustained chiefly by enemata containing whisky, peptonized foods, broths, etc.

*Malarial cachexia* is the result upon the system of chronic malarial intoxication, which may manifest itself upon various organs. The line of treatment should be directed toward the relief of these various complicating troubles, together with the persistent use of quinine, iron, and arsenic in various forms.

Change of residence on the part of the patient to some locality where he will not be constantly subjected to reinfection is a *sine qua non* of successful treatment.—[This article first appeared in the Therapeutic Gazette.]

## *Diet in the Chronic Catarrhs of the Gastro-Intestinal Tract.*

By BOARDMAN REED, M.D., Philadelphia, Pa.

IN treating of diet in the chronic catarrhal inflammations of the stomach and intestines it is not intended to limit the discussion to those cases only which are usually classed as such. Our present exact methods show that chronic gastric catarrh in its earliest stages is rarely accompanied by nausea or vomiting and not always by pain in the stomach itself; also that cases of gastritis grave enough to have seriously impaired the health may be characterized by an increase rather than by a diminution of the appetite.

Again the same methods prove the frequent coexistence of catarrhal disease in the small intestines and persistent con-

stipation or constipation alternating with diarrhea when the disease has become more advanced. Obstinate chronic diarrhea points usually to an aggravated catarrhal inflammation of the intestinal mucous membrane complicated in many cases with ulceration.

A proper regulation of the diet is important in most derangements of health—perhaps in all. In those involving the digestive system it is peculiarly important. The science of dietetics presupposes that the appetite is not a safe guide in all cases and experience abundantly confirms this view. In the matter of quantity alone there are numerous patients who habitually eat too much and

many more who, in consequence usually of a faulty secretion of the digestive glands, eat too little. It can not be too strongly emphasized, however, that patients suffering with chronic catarrhal inflammation of the digestive tube require a strongly nourishing diet. Their nutrition is apt to be low and commonly shows a strong tendency to sink lower. A portion of their food fails of its intended purpose by undergoing fermentation or putrefaction instead of digestion and assimilation. In this way there occurs not only a positive loss to the organism of much needed pabulum, but a still greater injury through the absorption of toxic substances resulting from these morbid processes.

To offset the depressing effects of this two-fold injury there is often a craving for food in abnormally large quantities, which when taken in the three usual meals daily, embarrass the system and aggravate the existing disease by overburdening the viscera, producing stagnation and retarding digestion with dilatation as an ultimate consequence. One remedy in such cases is to prescribe more highly concentrated and nourishing kinds of aliment in the most easily digestible forms possible, and when this does not suffice to fulfill the needs of nutrition without overtaxing the organs, then to prescribe smaller meals and more of them.

Numerous theories are current as to the particular forms of diet best adapted to these catarrhal affections and much diversity of practice has resulted. A reliance chiefly upon cereals, vegetables and still has earnest and honest champions France, by Dujardin-Beaumetz and others and still has earnest and honest champions in some of our American sanitariums. This vegetarian system, in addition to its cheapness, has a number of manifest

advantages in its comparative asepsis, its laxative tendency, its palatability for most patients and its valuable nutritive qualities, maintaining the strength well and when it agrees often putting on flesh rapidly. Yet the observations of many physicians and my own experience in its use indicate that it is not a safe diet in the diseases now under consideration, except possibly in the mildest forms of intestinal catarrh associated with constipation. These foods disagree because they are highly fermentable and often irritating to the chronically inflamed mucous membranes.

A nearly exclusive milk diet has its votaries and in certain cases proves curative, especially when the milk can be obtained pure and comparatively fresh from the cow. The ordinary commercial milk of cities is always from one to three days old when served to the customer, and is often handled in such a careless manner as to become dirty and infected with all manner of germs, even when it escapes the grosser impurities resulting from its admixture with contaminated water and adulteration of drugs to counteract the effects of too long keeping. Happily, however, this difficulty has recently been well overcome in many of the larger cities and it is now possible, for the well-to-do classes at least to obtain, in sealed jars, milk which when furnished by honest dealers, is comparatively pure and aseptic, and usually not more than twelve to twenty-four hours old.\*

Such a milk properly modified or diluted may be given very largely in many catarrhal cases with the utmost advantage, especially when a little good bread or toast or sometimes a few eggs are added to the daily allowance. But this method employed in a merely routine or empirical way without

\*Dr. Samuel G. Dixon, president of the Academy of Natural Sciences, Philadelphia, has called my attention to the fact that sometimes the men who deliver these jars refill them without cleaning, which would be highly dangerous, when they have stood for hours in infected sick rooms.—B. R.

any exact knowledge as to either the motor power of the stomach or the faults in its secretory function is capable of doing harm. When there is much gastric dilatation or even marked atony, milk or any liquid taken in large quantities is liable to aggravate; and when the stomach is badly infected the same food is apt to ferment rapidly. It suits particularly well as a rule, in those forms of chronic diarrhea where the pancreatic secretion has been well preserved. However, as Ewald so well says: "It must also not be forgotten that an exclusive milk diet is a kind of slow starvation, and that to live on milk alone would require much larger quantities than the capacity of the stomach would allow."\* Hence such a diet can not be long persevered in without unduly lowering the strength.

In chronic gastric catarrh Ewald and most of the German authorities advise a mixed diet without any very severe restrictions. They allow meats, eggs, milk and many of the carbohydrates, proscribing, however, freshly baked breads, etc., as well as the coarser vegetables, strong acids, sharp condiments and the stronger liquors. They recommend that the starches shall have been changed so far as possible into dextrin before their ingestion and object to dishes cooked with much fat. Ewald particularly objects also to fat meats and the oilier kinds of fish, hard-boiled eggs and the tendonous parts of meat. Boas† takes very similar ground, but like various other German writers, prescribes diet tables with definitely weighed proportions of the proteids, fats and carbohydrates for each meal. Both Ewald and Boas very properly caution against too sweeping and arbitrary prohibitions of whole classes of foods in the diet of dyspeptics generally, since every patient has idiosyncrasies which need to be studied individually.

The American method of limiting these patients for a time mainly to lean meat and hot water, though on a *priori* grounds irrational and unsafe, has borne well the crucial test of experience in a large number of cases in the hands of several able physicians. In the bad cases the patients are put at once on the pulp of broiled lean beef or beef which having been finely chopped and deprived of all the fat and tendonous parts is afterward broiled in small cakes. With these is given usually a very small portion of stale bread or toast without butter and a very little raw celery or lettuce—sometimes also asparagus tips or stewed celery with occasionally one orange or baked apple daily or a few white grapes, the skins and seeds being rejected. Coffee and tea may or not be allowed, but the patient is required by most advocates of the method to drink from one to two quarts, and sometimes three quarts, of hot water every day. As improvement sets in and fermentation lessens, the number of articles permitted is gradually enlarged, but upon the first sign of a relapse the strict meat diet is resumed.

In other cases where the digestion is somewhat better, lean meats are allowed from the start in the usual forms of tender beefsteak and lamb chops, the fat and gristle being rejected.

Carried out with extreme rigorousness in cases adapted to it, this system of diet will in the course of four or six weeks, even without the aid of stomach washing, often greatly lessen fermentation. It will ameliorate markedly many stubborn cases of gastric or intestinal catarrh and according to the testimony of some of its most zealous champions, may even, when followed up later in a modified form, effect a radical cure, though not usually before the end of two or three years.

\* "The Diseases of the Stomach," by Dr. A. C. Ewald. New York: D. Appleton Co., 1894. † "Diagnostik u. Therapie d. Magenkrankheiten," von Dr. I. Boas. Part II. Leipzig: George Thieme, 1895.

The more enthusiastic advocates of this exclusive diet recommend it as a rule in all cases of gastro-intestinal catarrh, and it can not be denied that in a considerable proportion of such cases when intelligently directed and faithfully carried out, it does well. It supplies an abundance of highly nourishing albuminoid material in a form which is comparatively easy of digestion, and at the same time is very much less fermentable than most other foods. It is also of small bulk, except when inordinately large quantities of water are taken, thus aiding in overcoming dilatation of the stomach and bowels. The chief objection to it is that the proportion of carbohydrates and fats is far too low to support nutrition well for any great length of time. Then, too, the large quantities of hot water often required to be taken with the meat in order to keep up a sufficiently active elimination, have important contraindications. When the heart is very weak, a serious embarrassment may result from throwing into the circulation such unusual amounts of fluid, and when there is much dilatation or even marked atony of the stomach walls, these conditions are almost sure to be aggravated by taking in so much fluid.

Another objection to the routine employment of such an almost exclusive meat diet is that it is excessively stimulating to the gastric glands in cases where hyperchlorhydria complicates gastric catarrh.

Until recently the possibility of the co-existence of these two conditions was not recognized, but various observers have shown of late that we may have an acid gastritis that is a true catarrhal inflammation, along with a highly excessive secretion of hydrochloric acid. My own clinical work has confirmed this view. Experiments conducted in my laboratory

have demonstrated, as mentioned in a previous paper,\* that a meat diet powerfully excites the secretion of hydrochloric acid, thus tending to exaggerate the condition of hyperchlorhydria.

Numerous patients were put on a diet of meat mainly and the stomach contents analyzed every one or two weeks after the usual Ewald test breakfast. Some of these patients had in the beginning a normal proportion and others an excess of hydrochloric acid. The result was almost without exception a decided increase of the acid while on the diet. This was especially true in all the cases of the hyperchlorhydrics, except where the stimulating effect of the diet was counteracted by large doses of an alkali and sometimes even in spite of this. Evidently, therefore, this diet however useful in suitable cases, would be unsafe as a routine method in all, without thorough analysis and tests in every case.

Personally, I have found more difficulty in getting patients to carry out the meat-and-hot-water method, with the necessary strictness, for many months together, than in inducing them to submit to lavage with a diet somewhat more liberal though on similar lines. My results, too, in chronic gastric catarrh have been better since I have been employing lavage along with a diet in which lean meat, eggs and milk predominate, excluding sugar, shellfish, hot or fresh breads, fried foods, all the less digestible vegetables as well as the coarse cereals and restricting starch foods to a few of the blandest in small amount. Stimulants and the stronger condiments are cut off as a rule, to which there are some exceptions. All the more acid fruits, especially those with small seeds, and all hard and gritty articles incapable of perfect solution, are strictly forbidden. In the worst cases I frequently, at first, pre-

\* "The Excessive Secretion of Hydrochloric Acid by the Stomach and Its Possible Serious Consequences," by Boardman Reed, M.D. *International Clinica*, Vol. I., seventh series, 1897.



scribe either the pulp of lean beef or juice expressed from the same as almost the only food for a few days. When perfectly fresh eggs can be had they are usually added, being eaten either raw, soft boiled or poached. The whites beaten up and taken raw agree well even when the stomach is very irritable and make an ideal food. Then gradually the dietary is enlarged, watching the effects upon the urine, mucous secretion, body weight and condition generally.

In the pronounced cases of gastric catarrh with an excess of hydrochloric acid (acid gastritis) I often find it necessary to restrict the dark meats especially, ordering eggs and milk instead, with the gluten preparations and a small amount of white wheaten bread, preferably in the dryer forms so as to obtain a larger admixture of the saliva. The farinaceous food in these cases should be predigested as far as possible by heat. It is sometimes well to let the patient take daily one lunch or light meal consisting mainly of bread or other preparations from grains, changed so far as it is practicable by heat into dextrin, as in the form of toast or zweiback or the various malted foods. Good fresh milk is a good accompaniment of such a meal. Otherwise he should be advised to take whatever carbohydrates there may be allowed, in the early part of one or more meals, following these later with meat or eggs. In this way the salivary digestion is given an opportunity of proceeding well on toward its completion before the time—usually about twenty to thirty minutes from the beginning of the meal—when the secretion of hydrochloric acid has become large enough to arrest the process.

In the cases of gastric atrophy in which there is practically no longer any secretion in the stomach, I have not found

a meat diet to suit well as a rule, even when full doses of hydrochloric acid and pepsin are given. Sometimes eggs raw or lightly boiled agree better. Here, however, the best grades of the cereal preparations made of finely ground and bolted flours or meals with milk peptonized or not, according to the condition of the pancreatic and intestinal secretions and with the addition usually of a certain amount of eggs, has seemed to succeed best.

But in the cases of chronic gastric catarrh in which the secretion of the hydrochloric acid is merely diminished, the results from a diet of meat and eggs chiefly are often excellent. To supplement the work of the stomach glands hydrochloric acid can then be administered in quite small doses with usually the happiest results.

Observations in my laboratory have shown beyond question that 0.3 to 0.6 c.c. of the dilute hydrochloric acid given during the period of digestion in such cases tend strongly to promote the secretion of the gastric glands, so that it is not uncommon to find after a few weeks of such treatment, even when not conjoined with other roborant measures, a largely increased percentage of the acid as shown by analysis after the usual test meal.

In intestinal catarrh the selection of the diet must turn largely upon the condition of the stomach digestion. When the case is complicated by hyperchlorhydria the diet above recommended for that condition will generally be the most suitable. These are cases in which a milk diet frequently gives the best result. The same with the cautious addition of meat juice and eggs will usually agree well in cases of intestinal catarrh with very small or absent digestive power in the gastric glands, provided any de-

iciency in the secretion of the pancreatic juice shall be made up by the administration of a good active extract of pancreas.

When the intestinal catarrh is conjoined with good stomach digestion—a

not very frequent combination however—there may be a full allowance of meat along with the blandest vegetables and farinaceous foods, though even here milk and eggs will often agree better.—[This article first appeared in *The Journal*.]

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*The Much-Abused Nose.\**

By F. T. ROGERS, M.D., Providence, R. I.

NEGLECTED in many instances when slight attention might relieve a patient from much future suffering, maltreated in many more when subjected to all sorts of surgical experiments in an attempt compounded of a desire to operate and a wish to effect some problematical reflex, the nose is doubly unfortunate. Located between the eyes, which can see all the horrible things done to it, and the mouth which can voice in emphatic tones its protest, this organ must needs suffer in silence and can only get even by annoying its owner, while the chief offender, the doctor, goes scot-free, caring little for the disdainful uptilt or sorrowful depression of its tip, its only means of showing emotion.

It is within the memory of all of us when the care of the nose was relegated to the quack, and its therapeutics consigned to the nostrum-maker. It is our privilege to live today, when a more accurate knowledge of its structure, physiology and pathology is essential to every practicing physician, and it is my pleasure today, not to instruct you in what you know as well as I, but to bear testimony to the interest I feel in this society, which I was, in a measure instrumental in organizing, by calling to your attention a few of what Birmingham has called

"rhinological don'ts," as well as a few of what I may term rhinological do's.

Preliminary to any consideration of this subject, and essential to any successful application of our knowledge, is a knowledge of the anatomy and physiology of the nose, an ability to make a satisfactory examination of the nasal cavities and an appreciation of what is seen on such an examination.

On general principles, it is folly for one to burden a paper of this sort with data which can be, and usually is, copied from some text-book accessible to all, and concerning this first desideratum, I have but this to say: If you do not know the fundamental things of the normal nose, don't hope to differentiate the abnormal; if you don't know its structure, don't criticise malformations; if you don't know of its functions, don't hope to correct pathological conditions; but study them and master them before attempting to treat this organ. Accustom yourself to examine a nose methodically with a satisfactory speculum, abundant illumination and correctly placed source of light, to note each portion of the illumined space in detail and to base your diagnosis upon accurate investigation that will tell you whether there is present a normal membrane or an inflamed one; whether there

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\* Read before the Washington County Medical Society at its annual meeting, January 13, 1898.

is hypertrophy or atrophy of either membrane or turbinates; whether there is any obstruction to the normal respiratory act,—and do not, after a hurried glance with a dim picture of a hole lined with red and a few flakes of mucus, say: “Yes, you have catarrh. Go home and snuff some salt water up your nose.”

Together with this knowledge should go a cultivated common sense, which prevents one from cauterizing a simple inflamed membrane or hoping to gain a favorable result from douches of alkaline fluids in the hypertrophic form of rhinitis with obstructed lumen.

Complaint, if it be referred to the nose, is made by the patient in the majority of cases, either in regard to obstructed respiration or offensive discharge, less frequently to soreness or pain.

The first is usually found in malformations of the intranasal structures, presence of growths, hypertrophic inflammation of the membrane, or crusty secretions. The latter is due to specific disease with necrosis, retained secretions by obstructed passages, atrophic rhinitis, or empyema of an accessory cavity.

The first desideratum is cleanliness, and the first test of a physician's skill is found in his treatment of this necessary procedure. The method employed should, save in rare cases, be the douche. Its great drawback is the possibility of allowing the ingress of fluid into the eustachian canals and the causation of a tubal or tympanic inflammation; but the syringe is unscientific, the spray from a handball atomizer is ineffectual and, used with certain precautions, the douche is by far the most efficient method.

The fluid should be placed in a test tube, which has the advantage of cheapness, or, if greater refinement is desired, in a Birmingham douche and, placing

its tip in one nostril, with the mouth closed, the head is to be slowly bent backward till the fluid runs easily out of the tube or cup. Retaining it in the nasal cavity as long as possible, the head is then tilted forwards and the mouth opened. The fluid will be found to emerge from the opposite nostril having, in its passage, washed not only the nasal cavities, but the upper post-nasal space as well.

This procedure, repeated several times, will so soften the dried and tenacious secretions that, after waiting a few moments, they may be easily expelled. Under no circumstances should the ordinary douche, placed above the head or at a greater height than a few inches, be used. Neither should there be any snuffing of the fluid, except when the douche cannot be used in children. It is sometimes allowable to let them snuff the fluid from the hand when the head is bent forcibly forward and depressed.

In atrophic rhinitis, with abundant crusts, the post-nasal syringe may be necessary in order to get the necessary volume of water. In office work, the spray, when driven by fifteen or twenty pounds of air pressure, will be the most convenient method, yet such a force will oftentimes cause a hemorrhage from the delicate or inflamed membrane and it is better, as a rule, to have the patients do their own nasal laundry work.

Next to method comes the agent to be employed. All are agreed that the fluid should be alkaline, of certain specific gravity and non-irritating. Formerly using Seiler's formula, I have of late prescribed, almost exclusively, glyco-thymoline. I found that Seiler's tablets were apt to make a solution which at times was irritating and painful, while glyco-thymoline is uniformly pleasant as well as efficient. Whatever of thera-

peutic value there may be in its formula, I do not know; but certainly it has at times served as a healing as well as a cleansing agent. Other formulas, if scientifically compounded, may prove as good, but glyco-thymoline is certainly efficacious.

With the nose clean, we are prepared to examine it further. Two conditions may prevent a satisfactory examination—the presence of hypertrophic tissue or polypi, and the application of cocain on a cotton probe will so reduce the one that the deeper structures may be examined or the ecraseur remove the other.

Cocain should not be used in a spray. The toxic effect, which sometimes follows its use, is alarming and dangerous, and when once seen most thoroughly convinces the operator of its danger. There is, too, the danger of the formation of a drug habit.

Eucain, the new anesthetic is by far safer, and in its anesthetic effect, quite as efficient. It does not retract the tissues quite as readily as does cocain, but still enough to allow thorough examination. I have used it almost exclusively in nasal work, for some months, with only an occasional failure to get the desired result.

If the condition we find is acute, the use of the cleansing solution, followed by a five per cent. solution of antipyrin, will prove effectual. Do not use cocain and, indeed, it is a good plan to never give the drug to patients for home use. Small doses of quinine and belladonna will aid in recovery.

Should our examination reveal a simple chronic rhinitis, our treatment will resolve itself into daily cleansing with glyco-thymoline, the topical application of a mild astringent, or the use of a spray of menthol in albolene, and due attention to the general health. The last factor is

apt to be forgotten in our treatment of what is usually considered a local disease, but is none the less important, and you will find that the condition of the digestive organs, in particular, will aid or detract from the remedial measures employed.

The most likely condition one will find is hypertrophic rhinitis. How shall we treat it? We must not mistake the swollen end of the inferior turbinate for hypertrophic rhinitis. This swelling, first on one side and then the other, is purely a physiological process, and the tip is not to be rashly excised or cauterized, or you will simply prevent the cure you are seeking to effect.

The action of the cocain will sometimes tell at once whether the enlargement is simply a swollen condition or a hypertrophy and further examination will frequently reveal the exciting cause in a septal spur or other malformation, but in our desire to render the passage freer we should not forget that even nasal occlusion is more desirable than inability to lessen its patency under certain conditions, and this undoubtedly is one of the functions of the inferior turbinate. This swollen tip of the turbinate may be indicative of an extra-nasal disease as, for instance, adenoid vegetations or empyema of one of the accessory cavities and should not be touched except it be constant and not intermittent or so great as to completely block the fossa.

When operative interference is demanded the tip may be removed by a snare with a transfixing needle, or better the electric cautery may be used, burning completely to the bone, trusting that when the eschar is thrown off there may be a band of cicatricial tissue binding it down in one or two places.

Delavan, in a recent article in the "New York Medical Journal," suggests

that the operator puncture the turbinate in several places with a small-spear-shaped knife trusting that enough vessels may be divided to materially lessen the blood supply and so diminish the turgescence. This reminds one of spearing eels through ice, jab, jab, jab,—maybe you get an eel and maybe you don't.

Posterior hypertrophies should be removed with a snare; septal spurs and ridges, which crowd into the opposing tissues, disturb circulatory action and consequent nutrition, should be removed by the saw.

In passing judgment upon these echondroses we should not forget that few noses are symmetrical. Convolutions, eminences and depressions are constant and are not necessarily a source of irritation, and under no circumstances should our desire to do something radical prompt us to interfere unless there is a direct proof of its causative factor in nasal disease.

Polypi should be removed by the snare, never by torsion or biting instruments, and never save when the field of operation is abundantly illuminated and the operator has a perfect knowledge of the tissues enclosed in the loop.

Aside from surgical measures, relief in some cases may be obtained by the topical application of iodine, tannin and other astringents. The camphor-menthol solution applied either in a spray of five to ten per cent., or on pledgets of cotton soaked in it, will relieve the turgescence, diminish blood supply and render the patient more comfortable. In no better way can this remedy be employed than by the Globe Nebulizer and it is in daily use in my own practice with excellent results.

Many different formulæ may be used but the two of most value are the camphor-

menthol just mentioned and a solution of iodine.

Surgical procedures will in most cases be necessary, and, in general, use the simplest method possible. Avoid extensive lacerations of membrane. The saw should be sharp and used without much force—simply guide it and allow it to do the cutting. To remove exostoses it is absolutely without an equal; to remove hypertrophies, the knife, snare or scissors should be preferred.

The after treatment is essential and daily dressings should be made to prevent the formation of fibrous bands and untoward cicatrices.

Atrophic rhinitis is the *bête noir* of rhinology, and it is almost easier to name the drugs which have not been used than those which have. The essential results we aim to attain are cleansing of the nasal passages, healing of ulcerations, relief from unpleasant odor, the promotion of adequate nasal respiration, proper drainage and the restoration, so far as possible, of the nasal lining membrane to its function of a moisture-producing mucous surface.

The first indication is met by the use of glyco-thymoline, the second, by topical applications of trichloroacetic acid, and the latter by the application of good judgment and a little common sense. No hard and fast rule can be laid down for every case—each must be considered by itself.

The rhinitis which is caused by the presence of hypertrophy of the pharyngeal tonsil will not get well under any treatment while the exciting cause remains and no one in either general or special practice who has seen the beneficial results of the removal of adenoid vegetations will neglect attention to this frequent source of rhinitis.

A deflected septum is oftentimes an un-



pleasant factor, but this can only be remedied by operative means, and this particular operation is one which seems simple enough but which will involve the operator of scant experience in a sea of troubles before he dismisses his first case with a patent nostril.

The diseases of the nose which commonly you meet in general practice, the forms of catarrh which you are asked to treat are the types of the disease you should know how to combat.

The numerous nasal reflexes, the dysmenorrhea caused by hypertrophy of the left turbinate, the epilepsy caused by a spur of the septum, and insanity caused by a deflected septum, are beyond my ken and I cannot advise you personally. Aside from the mental effect upon some patients of an operative measure, I believe there is no real benefit to be gained in such cases, but, on the other hand, headaches, disturbed vision and even choreic manifestations may be caused by nasal irritation while all acknowledge the remote effects of persistent and habitual mouth-breathing. The successful physician to-day is one who recognizes the possibility of such conditions and dares to attempt a cure. One such success outweighs a score of failures.

In brief, to be successful in treating the nose:

Understand its structure and do not do anything blindly or without good reason.

Always make a careful anterior and posterior rhinoscopic examination and

do not accept a snap diagnosis.

Always clean the nose and don't allow the patient to go with it unclean.

Give him definite instructions and methods of procedure and don't take for granted that he knows how to use a douche, but tell him what to use and don't allow home remedies like salt water or Pond's extract.

Pay attention to the general health and don't forget that the nose is an integral part of the system, not a thing apart from it.

Pay personal attention to the patient and each detail of treatment. Don't trust him too much.

Recognize the principles of successful surgery and don't cut, saw and burn indiscriminately.

Examine each case to see if the calibre of the canal is diminished and if there is obstructed breathing and don't fail to correct it by surgical means.

Remember the dangers of prolonged mouth-breathing, both as to liability of infectious disease, lack of power to resist disease and tendency to pulmonary complications and don't allow adenoids to go unrelieved in the hopes that the patient will grow out of it.

Remember the failings of the human race and don't forget the possibility of syphilis even in ministers, deacons or the lights of society.

Use knowledge, science and skill in treating the nose and don't forget to use common sense.—[This paper first appeared in the Atlantic Medical Weekly.]

## Editorials.

# Journal of Practical Medicine

ISSUED MONTHLY.

CHAS. H. STOWELL., M. D., EDITOR.

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### "Put a Feather in His Cap."

This is an old saying, but it carries a world of meaning with it today. The boy astride a broomstick with a turkey feather in his cap is but the miniature of the man who is hungering and thirsting for position and power.

You see it in church life illustrated by the efforts put forth to obtain positions among the officary. You see it in political life as shown by the one who will mortgage his home for a term at the national capitol. And you see it in the medical profession clearly set forth by the one who yearns and craves for a place in a college. Indeed, he is only too ready to sell all that he hath in order to have the magical "Professor" become a part and parcel of his organization.

Two professors met. One said, "I notice they call you 'professor,' may I ask you of what?" "Certainly," was the reply, "I am the old professor of

Greek in — college. And what is your position?" "I," said the young doctor, of medicine, "am the professor of regional anatomy in — college." The humor of this is greatly heightened when we remember that the first professor belonged to one of our oldest schools, while the other was attached to a college four years old, with not over forty students. Yet both were "professors."

However, we were once a "professor" ourselves. Listen to this, all that desire consultations! We know how never to disagree with you poor fellows who never had a title! We can fully sympathize with you in your lost hopes. Once we did not know enough to be a professor. But the votes of a few men made us filled with the most profound learning, and all within a single minute!

A professorship is a better antidote to ignorance than is antitoxin to the Klebs-Loeffler. We urge upon all our friends who are still among the minority of non-professors to hasten at once to raise the standard of professional excellence by forming new colleges in their midst. And may the time soon come, when, from one end of this broad land to the other, not a person need be treated by any less a personage than a full-fledged "professor."

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### Resignation of Dr. Busey.

Word comes that Dr. S. C. Busey of Washington, D. C., has resigned his election as orator on State Medicine at the next meeting of the association. All who know the one selected for this work

will certainly regret to hear this news. Dr. Busey has the faculty of not saying anything unless he has something to say; therefore, without doubt, his address would have been a masterpiece. This is to be regretted all the more because ill health was the cause of the resignation. We have always regarded Dr. Busey as one of the most scholarly men we have ever had the pleasure of meeting. The profession of the national capital owe him a debt it can never discharge; indeed, we do not believe it cares to discharge the obligation, for it is a pleasure to be a debtor to such service.

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#### **Females at Murder Trials.**

The New York papers have had much to say about the degenerate character of those women who persisted in attending the murder trial of Thorn. They tell of the "shocking, disgusting details," and talk of the lack of common decency in "these creatures." Some of our exchanges are copying these virtuous out-breaks, and that is the reason for this mention of the matter.

But how about the men, please? How many men in that court room would not try to enter a dissecting room, if they thought there was a ghost of a chance of succeeding? How many times have you been asked by very "respectable" men if you could not arrange such a visit? And for what? To satisfy a degenerate mind? Oh, no. To gratify a scientific mind!

In women it is degeneracy; but in men science!

Freshmen who hanker for a surgical clinic; all who "love" to see a surgical operation; students who find delight in vivisections; Seeley dinner devotees; visitors of brothels; despoilers of virtue; and those who would lower the divinity of the female figure in any way; these all belong to the same crowd with "these creatures" who attend murder trials. And the men in this respect outnumber the women, ten thousand to one.

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#### **One Bad Apple Will Spoil the Bin.**

When a boy we often "looked over" the apple bin for any decayed fruit. We were told that one bad apple would spoil the bin. It was a hard reputation to give a whole bin full of fine pippins, simply because one decayed associate was there, yet the germs of decomposition are very active among a neighborhood. An exchange says that there are "thousands and thousands of conscientious, upright, honorable pharmacists who would no more think of substituting than they would of passing a counterfeit bill."

Yet there are an awful lot of bad apples in the bin! Why do not these same wonderfully good and tremendously upright persons cast out their own bad apples? This is the one criticism we have on the pharmacist of today. He practically makes no effort to rid his profession of the few bad fellows who give a flavor to the whole binful that is not at all wholesome. Don't ask us to pluck them out; but cast them out yourselves; is our word to these "thousands of pharmacists."

## Leading Articles of the Month.

### **The Analysis of the Urine of Children.—**

The main subject of this paper, the analysis of the urine of children, aside from a brief notice in the well known textbooks on the chapters devoted to diseases of the kidneys, has been unjustly and sorely neglected by medical writers in general and pediatrics in particular. Of its real value in the diagnosis of diseases of the genito-urinary apparatus, I need not attempt to impress my readers; its importance for the early diagnosis of certain diseases of children is my only apology for its appearance.

In the early part of our observations, we met with much difficulty in obtaining a satisfactory amount of urine from infants for a proper analysis. A very simple method, the use of a sufficiently fine flexible catheter which was practiced at first, we think most unjustifiable, from the fact that the slightest neglect will permit the introduction of septic influences into the bladder; besides, when the little patients were brought into the clinic, we often found a recently emptied bladder or one containing too small an amount of urine for proper examination.

Because of these and various other reasons, we resorted to the use of a flat sponge about the genitals, or placed as a pad over the vulva in the case of female infants. In this manner, after each urination, the contents should be squeezed out into a bottle, the sponge rinsed in running water and replaced when dry, permitting in this way the collection from several urinations or even for the whole twenty-four hours, as is sometimes necessary.

Children more than one or two years of age are generally easily taught to express their desire to micturate, when the urine may be collected in a proper vessel.

It would be well to state here a few facts of importance relating to the physiological condition of the urine of children as differing from that of adults.

It is rarely, according to Martin and Rudge, that new-born children urinate before the first day, and sometimes not until the second or third day is this function established, but our own observation is in direct opposition to the above statement, and we have failed to see a case in which the new-born has not begun to urinate before twenty-four hours old.

The normal amount of urine in the day varies, on an average, from the second day to the end of the second month, between 130 and 417 c.c., increasing considerably until the fifth or tenth day and then more gradually up to the time mentioned.

From the second to the eleventh year the amount varies on a daily average between 619 and 1034 c.c.

The color for the first few days is rather dark and turbid with a slight sediment of bladder epithelium and uric acid; later on it turns clear and of a straw-yellow color.

The specific gravity diminishes rapidly up to the fifth or tenth day, less so after this, and its average is 1005 or 1010.

Reaction is acid at birth, and when not so, it is slightly alkaline. It is only later that it becomes neutral.

The amount of urea is less than in

adults, since one litre contains 303 grm. of urea in a child one month old, weighing about 3850 grm. The amount diminishes gradually until the tenth day when it has a tendency to increase again.

The weight of the child as well as its age has a direct influence upon the quantity of urea; thus for instance, in the body weight of 1000 grm., urea will rise about 0.63 grm. per litre. The minimum is met with in the low temperatures. Until the eleventh year it varies between 11.1 grm. and 15.1 grm. during the twenty-four hours.

The urine of the newborn is rich in sodium chloride which salt diminishes with age. During the first and second months of life it is in the same proportion as in adults; that is, from 1.7 grm. to 2.2 grm.; from the third to the fifth year, computed by kilogram weight, the amount is 0.57 grm.; at eleven years, 0.44 grm. and at sixteen years, 0.18 grm.

Phosphoric acid is seldom found, but when met with, it is always in very minute quantity.

Uric acid is present in the earliest urine, and the quantity regularly increases up to the third day, when it rapidly diminishes.

On examining the kidneys of a newborn, the papillæ will be found filled with a reddish substance which obstructs the urinary ducts; this, as is well known, is nothing more than uric acid infarction and has no pathological significance.

Parrot and Robin found urate of soda, sulphate of calcium, magnesium, potassium, benzoic acid, allantoidin, mucin, and Cruse denies the presence of sugar, oxalate of calcium or hippuric acid. Creatinine and indican are not found in the urine of the newborn or wetnursed. Xanthine is relatively abundant in cases of nephritis.

During the first ten days traces of al-

bumin are found; this, many authors believe, has some relation with the uric acid infarction, but to our mind it is only the continuation of the process of transudation which takes place in the kidneys of the foetus through the incompletely developed glomeruli. Later in the child's life, the presence of albumin in the urine is always pathological except when it is the physiological result of the administration of certain drugs, (tr. iodi, etc.). On its being allowed to stand, the urine of children will become turbid with greater rapidity than that of adults, due to the development of the same organisms. The analysis of the urine has been used to determine the degree of nutrition or health in the economy, and we dare to foretell that when greater attention is paid to this important branch of medical diagnosis, it will be more largely practiced both in hospitals and private work.

In infantile atrophy, as may be presumed, the quantity of urine is far below the normal; it is yellow, acid reaction, often contains organic deposits, sugar, albumin and an excess of urea and phosphates.

In icterus neonatorum, unlike in adults when jaundice is present, the urine is pale yellow and contains urates, epithelial cells, and yellow masses of pigment.

The urine of infants with scleroderma is reddish, acid with uratic deposits and slight excess of urea.

The presence of albumin is always of importance although not always due to an inflammatory process of the kidneys. It is often the sign of a simple congestion in athrepsia, cholera infantum, general or intestinal tuberculosis, intestinal catarrh, typhoid and scarlet fever.

A slight amount of albumin may be found in nephritic colic due to the stimulus which the uric acid exerts upon the



renal parenchyma. At other times when present, there is an actual inflammation of the kidneys, as in scarlatina and diphtheria: there may be an amyloid degeneration without its being possible to discover any albumin in the urine.

The value of daily analysis of the urine during an attack of scarlatina is well appreciated today in spite of this. In this manner only is it possible to ascertain the presence of this most unwelcome complication, at its onset.

Sometimes children will be found pale, the urine perhaps abundant or diminished in quantity; it will contain albumin, a few hyaline casts, uric acid and epithelium, yet they will have good appetite, will play and appear otherwise quite well. Others become languid, lose their appetite, complain of headaches, painful micturition and will pass a turbid and sedimentous urine. In these cases albumin soon appears.

The more severe cases suffer from anuria; partial œdema will occur in the eyelids, on the dorsum of the foot, etc. The next day the amount of urine will have been one hundred and fifty grm. in twenty-four hours. This will increase, perhaps, never to return to the normal.

The color of the urine in Bright's disease will be variable, according to the amount of blood which it may contain, of acid reaction and average specific gravity of 1010 to 1015. Under the microscope we find red and white corpuscles, hæmatin, renal epithelium, hyaline or granular casts, uric acid crystals, fat globules and detritus. We have never seen the ribbon shaped casts described by Thomas as found in the urine of adults.

Chronic nephritis may be the result of an acute affection complicating scarlet fever. In these cases children suffer but

little and seldom show more than a few œdematous spots.

These forms of kidney involvement are rather rare, and cases which have been diagnosed as such have, on autopsy, proven to have been cases of amyloid degeneration due to syphilis, malaria, struma, rachitis or tuberculosis.

In the mild forms of diphtheria the urine suffers no change whatever, but in the general infection, even in the early stages, albuminuria is found, which to our mind is fairly positive evidence of systematic infection. If the urine diminishes in quantity and blood corpuscles are found under the microscope, we may feel sure that the diphtheritic process has invaded the kidney, or else that a nephritis complicates the diphtheria.

Guidi and Levi assert the existence of primary diphtheritic nephritis; we must say that we cannot understand the manner of infection in such cases.

In rachitis, albuminuria is comparatively rare; the quantity does not change materially, but the calcium salts have been found in marked diminution. Marchand and Lehman have discovered lactic acid present. The phosphates and chlorides are in very small quantities. The urine of leukemic patients at times contains albumin and many lymph corpuscles as well as hyaline casts. The uric acid and hypoxanthine are in greater quantity.

Diabetes mellitus has been met with at a very tender age, even to a proportion of sugar of 10 per cent.

In a case of pseudo-hypertrophic paralysis Dennen reports marked glycosuria. The writer has been unable to show the presence of peptone in any sample of urine from children.

Hemoglobinuria is found in Winckel's disease, and the same as in adults, in malaria, syphilis, and as a result of ex-

posure to cold. In the prealbuminuric stages of scarlatina we feel that the detection of traces of hæmoglobin in the urine has been of inestimable value to us.

We have often met with acetone in otherwise healthy urine. During a febrile period (about 101° F.) and in the eclamptic seizures, it is almost always present. It disappears immediately after the disease has reached its crisis. We have been unable to determine the presence of uroglauine in scarlatina as claimed by Apery, perhaps through faulty methods on our part.

Hematuria and pyuria have no special significance beyond that which they have in adults.

Uric acid is in excess during the first week and is a physiological phenomenon; later on, deposits of urates and uric acid appear in the course of serious diseases of the digestive apparatus. Under other circumstances, the oxidation of nitrogenous substances being diminished (by diseases of the respiratory or central nervous system), deposits of oxalate of calcium occur.

Infarcts of uric acid may be found even up to the seventh or eighth week. Children will strain, make repeated efforts to cry out during urination; the diapers will be found stained with a darker urine than usual; the edges of the wet surface will be seen reddened by a yellowish pink sandy deposit. A careful analysis of this urine regularly shows an excess of uric acid, many epithelial cells, a few pus corpuscles and mucus and traces of albumin. Quite frequently the urine is so acid as to produce such pronounced evidences of pain on the part of the infant as is met with in the nephritic colic of adults. We have often successfully resorted to an analysis of the urine in those cases when we have been able to

exclude enteralgia as a cause of the evident pain.

When Koch's bacilli are present in urinary sediment, the diagnosis of tuberculosis of the kidneys, ureters or bladder may be positively made. Care should be exercised not to confound the tubercle bacillus with the smegma bacillus which may often be present in the same specimen of urine and which stains like the former, though it decolorizes differently.

My readers will recognize the possible value in some cases of analyzing the urine excreted from one kidney at a time, and for this purpose many instruments have been devised besides the usual method of catheterizing the ureters. Not having had personal experience with any, we cannot speak of them in any particularly commendatory manner.

The epithelium found in urinary sediment is often of great importance in determining in what part of the genito-urinary tract the lesion exists, and a knowledge of the histology of these organs will sometimes prove invaluable.

The presence of echinococcus, filaria, etc., determines the exact nature in those diseases.

Aside from the actual examination of the urine, it may not be deviating too much from the subject of this paper to add a few abstract remarks upon the disorders of urination.

The bladder in children is examined as in adults.

Among the functional derangements we must not forget that sometimes retention during several days may be the only symptom of a tubercular meningitis.

Dysuria is not always a manifestation of renal or vesical disease, since a high fever may at times originate it. In such cases children complain or cry out on attempting to urinate.

This symptom belongs as well to affections of the external genitals such as phymosis, urethritis, congenital anomalies of the urethra, those of the labia minora in females, etc.

Enuresis is a common symptom in childhood. It often shows itself during the first year, and cases are not infrequently met with in which it persists until puberty. Although at the present day it is thought of as a neurosis, which develops after certain debilitating maladies, in impoverished organisms, in masturbators, in dreams while in the dorsal position during sleep, and by other causes, it must be kept in mind that it may constitute a prominent symptom of diabetes, nephritis, vesical calculi, and lastly, it may be a premonitory sign of any special disease which it may initiate.

If all these questions prove negative a hyperæsthesia of the vesical mucosa must be suspected, or else a defective innervation of the vesical sphincter or an imperfect development of the bladder muscles.—[Dr. Aristides Agramonte, in the Medical Herald.]

### The Treatment of Scarlatinal Nephritis.

—With varying frequency in the different epidemics, we observe nephritis as a complication or sequel of scarlet fever. As a rule it sets in during the end of the second or the beginning of the third week after the appearance of the exanthema, but it may develop later, though rarely after the sixth week.

As to its causation, there is a divergence of opinion. Early exposure to drafts and cold and other indiscretions during convalescence may play some rôle as a causative factor, but a great many, perhaps most of the cases, develop where all possible care has been taken. For this reason the view of a microbic origin is more frequently upheld. It seems

likely that the microbes of scarlatina generate ptomaines which have a particularly damaging influence upon the kidney and the walls of its capillaries.

I will state right here that in some measure, however, serviceable preventative measures may be taken, namely through a proper stimulation of skin perspiration during the period of eruption as well as desquamation. In this regard I quote a report of Schill who states that in 63 cases of his own and 47 cases of Schellenberg, treated by daily warm baths of 95° F., all but two cases escaped nephritis. The baths were given twice a day during the first week and once a day during the second, with a duration of ten minutes. A good prophylaxis, moreover, requires rest in bed or in a warm room, avoidance of drafts and sudden changes of air, a liquid diet and attention to the bowels until all symptoms of the disease have disappeared.

The most frequent and almost typical of nephritis in scarlet fever is that of *glomerulo-nephritis*, showing proliferation and desquamation of the capsular epithelial cells of the glomeruli, sometimes combined with a capillary thrombosis. Less frequent is the *interstitial form*, presenting hyperplasia of the interstitial connective tissue.

The first symptoms directing attention to a nephritis are edema, albuminuria and sometimes anuria. Quite frequently physicians neglect to inform the parents of their little patients that nephritis may follow even the mildest form of scarlet fever (in fact the lighter the exanthema be the nephritis) and days pass by that might have been useful in lessening the attack when a general edema first calls the attention of the nurse to the now fully established disease. The medical attendant should make it an object not only

to fully instruct the parents, but also to examine the urine at least three times a week during desquamation.

Albuminuria may be present during the period of eruption, but it is usually slight and not accompanied by anasarca. It is present in cases with high fever and is not due to nephritis, but to other changes which favor the transudation of serum from the blood (probably functional changes of the walls of the glomerular capillaries). Albuminuria due to scarlatinal nephritis is usually attended by the presence of epithelial cells, more or fewer red blood corpuscles, leucocytes, hyaline, epithelial or blood casts, but in some exceptional cases there may be albuminuria while the urine is free from other pathological elements. Frequent examinations of the urine are necessary as the urine may be nearly normal for a few succeeding days and later on present all the changes due to nephritis. It is particularly to be recommended to filter the urine and examine the sediment, even if albumin is present. Cases have been reported where the autopsy revealed nephritis, while no albumin had been found during life.

More important than the albuminuria, which is quite varying in frequency and intensity, is the amount of urine voided. There may be complete anuria for 24 hours, or only the passing of a few tablespoonfuls of turbid urine during this period. Its specific gravity is usually high, its reaction always acid, its color now lighter, now darker, from light to dark brown, with an admixture of blood and uric acid crystals.

Edema may be absent during the entire course of the disease, in most cases, however, it is soon noticeable, though greatly differing in intensity. Wherever it is light, it usually appears only on the eyelids, on the dorsum of the feet and

around the malleoli. In other cases there is general anasarca of the subcutaneous cellular tissue, more rarely with an edema of the scrotum and penis. The edema is frequently more pronounced on that side of the body upon which the child is in the habit of resting.

It must not be overlooked that edema without albumin in the urine is not infrequent after scarlatina. According to Filatow it is mostly caused either by a weakening of the heart's action through disturbances of the nervous apparatus of the latter, or by an alteration in the capillary walls under the influence of the scarlatinal poison.

Ascites is not infrequent; less often do we observe serous effusions into pleura and pericardium, rarely edema of the aryteno-epiglottic folds.

Hypertrophy and sometimes dilatation of the left ventricle of the heart is prone to develop in the course of scarlatinal nephritis—more certain and intense in protracted cases—in consequence of the increased blood-pressure in the aortic system, the decreased discharge of fluids by the kidneys, the ill-nourished myocardium and the poisoned condition of the nerve-ganglia of the heart under the influence of the scarlatinal ptomaines. The changes in the heart are clinically not always demonstrable.

The pulse may be irregular and weak if the heart fails to provide compensation, or full and slow with the increased blood pressure, or of no particular variation in mild cases.

The temperature seldom exceeds 102° F., keeps mostly between 99° and 101°, is sometimes subnormal. A rise in temperature is often coincident with an increase of blood and albumin in the urine.

Uremia may set in without warning, but is usually preceded by anuria or a

much diminished quantity of urine, vomiting, headache, somnolence, slowness and arrhythmia of pulse.

Cases of medium intensity usually terminate in full recovery; when, however, there is deficient urinary secretion or a prolonged anuria with extensive and rapidly appearing anasarca, especially when complicated with edema of the lungs, the prognosis is unfavorable. Further, if after an abeyance of the symptoms, blood and albumin appear again in the urine, our prognosis should be guarded.

The first requirement is absolute rest in bed in a well-aired room of an equable temperature between 70° and 75° F.; the second, to give quick relief to the engorged kidneys by heightening the excretory function of skin and intestines, and by decreasing the work done by the kidneys, through the institution of a proper diet; the third, to increase the usually greatly diminished quantity of urine.

Only to a certain degree can the excretion of the solid constituents of the urine be performed by the skin; the maximum amount of these products excreted with the sweat is from 0.5 to 1.0 per thousand, and by the most active perspiration—which is surely not always permissible—not more than one-tenth of the urea appearing in the urine during 24 hours can be excreted. Moreover, a forcible excretion by means of the sweat glands is not void of danger, because the loss of fluid is too great in comparison to the amount of the excreted urea. If this loss is not readily made up for, there will be an accumulation of waste products, which decidedly favors the outbreak of uremic symptoms. Diaphoresis should therefore be moderate and followed by the ingestion of plentiful fluids. Among the diaphoretic measures I give preference to the warm bath of 98° to

100° F., in which the child is immersed from 15 to 20 minutes, or for a shorter period if it should be restless or frightened.

During the bathing cold compresses are applied to the head. Afterwards the child is put into the warm bed and wrapped into a well-warmed blanket, wherein it remains from one-half to two hours. Friction of the skin may be applied under the blanket. Usually profuse perspiration will result, which, if lacking, may be facilitated by the administration of hot drinks (lemonade), or by the use of Jaborandi leaves, ten gr. made into an infusion with hot water, or by nitrate of pilocarpine, one-twentieth gr. for a child of five years subcutaneously or by the mouth. The latter drug is tasteless and easily borne by an irritable stomach, but should be given with great caution on account of its depressing effects, and discontinued as soon as the urgent symptoms are relieved. In mild cases one bath a day will be sufficient, but two and even three baths can be given if necessary.

Hot baths of 95° F. brought to 105 or 106° F. by the gradual addition of hot water, are not to be recommended, as they relax the cutaneous blood vessels in such a degree as to cause the child to become uneasy and chilled, yes, even collapsed. Edema of the lungs and eclampsia are a direct contra-indication.

Should the warm bath not be tolerated or for some other reason be unobtainable, it will often suffice to wrap the child into a sheet wrung out of hot water and surround it with a warm blanket. To make the heat more constant, warm water bottles wrapped in moist cloths may be placed against the body and legs of the child just outside of the moist sheet. As a rule the children rest comfortably in

the wet pack and perspire without difficulty.

Other observers recommend the hot air bath by means of a tent, or by placing the nearly denuded patient, covered by a blanket, on a chair under which steam is generated from a vessel heated by an alcohol lamp, but I never found these appliances necessary, nor do I consider them practicable.

Poultices applied to the region of the kidneys are serviceable in the intervals of bathing. They can be made of pulverized flaxseed, or of one part of mustard powder to twelve of flaxseed, mixed with sufficient water.

Laxatives are often necessary; citrate of magnesia or comp. jalap powder in 10 grain doses, repeated if necessary in two hours. Podophyllin in repeated doses of one-twentieth to one-tenth of a grain, are mostly efficient. Active catharsis is not laudable and should be strictly avoided in feeble children. Sometimes an aperient enema is preferable. Ashby and Wright recommend large enemata of hot water, especially where little or no urine is voided.

The feeding on richly nitrogenized food undoubtedly favors the retention of products of nitrogenous waste in the system, which the epithelial cells in their impaired eliminative function are not able to dispose of. The resulting intoxication will lead to an outbreak of that complex of symptoms which we term uremia. It is, therefore, a clear indication to administer only such food as will furnish the smallest amount of nitrogenous waste and is readily assimilable. An absolute milk diet, which has many advocates, does not meet this indication; milk is too rich in nitrogen, and may, if taken exclusively, disturb digestion greatly; besides a good many older children object to it. A diet containing mostly fat and

carbohydrates, as commended for many years by Aufrecht, appears to meet all indications. I am in the habit of prescribing gruel or soups of barley, oatmeal or rice, and other light farinaceous food, cooked fruit, baked apples, fruit jelly, orange juice, and young vegetables, but only a limited amount of diluted milk. After the subsidence of the acute symptoms, I allow some white meat, eggs, and a large quantity of milk.

Last, not least: how can we, with the least injury to the kidneys, increase diuresis?

The normal quantity of urine passed by children from two to five years of age is from 450 to 750 cc. in 24 hours. In acute nephritis this amount is greatly lessened, often approaching anuria. Our aim should be to remedy this condition speedily, but not forcibly. It would be quite desirable if we could stimulate the amount of urine to about one-half of the normal, and in mild cases the ingestion of a sufficient amount of fluids will accomplish this. In serious cases even the best diuretics are given without result. As to the latter I hardly ever prescribe them. The irritating effect of most diuretics is unquestionable and I have always failed to see any good therapeutic effects from their use. In ordering drinks for the purpose of allaying thirst, increasing diuresis, and washing away waste material, there is to be taken into consideration the amount of urine passed by the child and the degree of perspiration and elimination of fluids by the bowels.

From this the physician should judge and prescribe as exact as possible the amount of fluid to be taken by the patient in 24 hours. Pure spring water and two or three wine glasses of some mineral water per day, like Wildunger or Vichy, also lemonade may be ordered.

A mildly diuretic lemonade is much in use, consisting of one drachm of bitartrate of potash dissolved in one pint of boiling water, into which one lemon, cut in small slices, has been put. This is sweetened and taken in 24 hours by a child two years old.

There can be no doubt that alcoholics are strictly to be avoided, considering their strongly irritating effect upon the kidneys. Even where a weak condition of the heart seems to invite their use, I should prefer other stimulants, of which we have plenty that are less harmful.

Acetate of potassium is one of the mildest diuretics. If used at all it can be given in three to five grain doses every three hours.

Digitalis has probably no direct effect on the kidneys and will only do some good where diuresis is insufficient on account of the weakened condition of the heart, and even then it is in my estimation not as serviceable as the tincture of strophanthus, which has a quicker effect and is less harmful.

Slight hematuria may be more relieving than injurious; when obstinate and combined with much anemia the tincture of chloride of iron (three to five drops every two or three hours) is undoubtedly of great service. Ergot is less reliable, and astringents like tannic acid are obsolete.

A uremic condition requires in sthenic subjects with full, hard pulse, a free evacuation of the bowels by elaterium, or senna infusion, or by an enema of water and vinegar (equal parts); leeches, whose bites are not left to bleed, behind the ears or on the temples; icebags to the head. If the pulse is small and irregular, hypodermic injections of caffein and camphor alternately, or the tincture of strophanthus, the latter especially where edema of the lungs is present, may be

used. Pilocarpine and the opiates are contraindicated in the uremic state.—[Pediatrics.]

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**American Wastefulness.** — The Rev. John Watson (Ian Maclaren) comes from a land of thrift. The Scotch, by the very necessity of their situation and surroundings, are obliged to be frugal, with results that are apparent to all who are familiar with Scotch character. The prodigality and wastefulness of Americans seems to have impressed Mr. Watson. He says of them:

"If one were placed in a witness box he might be obliged to declare that they were distinctly thriftless. An American flings about his money with gorgeous prodigality. Times there are when a hard-bitten, poverty-stricken Scot cherishes a bitter grudge against his more friendly cousin. It is when he follows him into a continental hotel and finds the lackeys despise his poor vail after the royal largesse they have just received. We can only stand aside and wonder at our kinsman who gets his money so easily, who holds it so lightly, who spends it so lavishly—a man surely of a very princely habit and far removed above thought of saving. And yet it may be allowed us to shake our heads and have some misgivings as to whether this prodigality is for the good of individual character and the firm upbuilding of a people. Is the ostentatious waste of food in hotels wholesome or justifiable, where the *ménu* is bewildering in variety and the portions supplied beyond all necessity, and more is taken away than is used? Does it conduce to stability and self-restraint to be quite indifferent about to-morrow and to reserve nothing of to-day's earnings? Have not the farmers traded recklessly on the virgin resources of the land? Have not the forests been improvidently cut down? Is there not

everywhere a certain want of prudence and management which cannot in the long run minister to moral strength or even to material wealth? If it be true, as is contended, that every great empire has been built up on thrift, this means that the homeliest of virtues does not end in the accumulation of money, but results in the creation of manhood. And the best friends of America, therefore, desire that amid all her prosperity she shall not fall away into improvidence and luxury, but ever retain and cultivate that habit of simple and severe living which was shown by her Puritan fathers."

This reference to the Puritan fathers suggests to the mind the difference between the American of the present and of the former generations. For Americans were not always wasteful. The foundations of the republic were laid by men who were known for their frugality and small economies. It is only since the civil war that this tendency to conspicuous extravagance and wastefulness which Mr. Watson notes has appeared as a distinctive trait of American character. Habits of wastefulness are not conducive to the best development of a people. Thrift and frugality are qualities essential to the highest citizenship, and the nation that does not develop them is untrue to itself. The extravagance which Mr. Watson notes is not confined to the rich, but is prevalent among those who might be glad to save if assured of safe depositories for their small sums. No nation on earth would benefit so much by the establishment of postal savings banks as the United States. In no country are these institutions so badly needed for their influence in inculcating in the people the habits of thrift and frugality that characterized the typical American of preceding generations. — Chicago Record.

**The City Board of Health and the Drug Business.**—The attitude of the late New York City Board of Health toward the medical profession in two rather important respects was discussed at a meeting of the Clinical Society of the New York Post-Graduate Medical School and Hospital, which was held on January 7th. Dr. George B. Fowler, who was a member of the old board, furnished the subject for the occasion in a paper entitled "Some Glimpses of the New York Board of Health," which he read. Dr. Fowler's paper explained in a full and lucid manner the methods used by the board in caring for the health of the city. It was in effect a report of the work done by the board and the excellent results attained, notably the reduction of the death-rate to 19.52 in a thousand.

The two points in Dr. Fowler's paper that were of special interest to those who heard it concerned the tuberculosis circulars sent out by the board some time ago and the manufacture, selling, and dispensing of diphtheria antitoxine and other products.

We shall not refer further in this article to the subject of what the board did in the matter of tuberculous disease, or the question of what it may have thought of doing. A fair portion of the discussion turned on the board's mercantile transactions, and to that point we shall confine our attention at present.

Dr. A. M. Phelps said that the board should be thanked for the able work that had been done in its bacteriological department, but when it engaged in commercial enterprises it struck a blow that was of serious import. Physicians, he said, did not all believe in the production and vending of antitoxine, tuberculin, etc., any more than they would believe that it was the business of the board of health to engage in the preparation and



vending of milk and food supplies. They might as well say that they would form a trust to provide these things. The speaker did not believe for a moment that it was the business of the board of health to produce tuberculin and antitoxine, or to have a cow-pox farm. He believed that the board injured itself by entering upon commercial enterprises. As to the cow-pox farm, it should be carried on by private individuals, but the board of health should have the same supervision of it as it had of the milk supply and other like matters. The board furnished antitoxine to the poor and to public institutions, but it could be bought in quantities sufficient for such purposes for much less than the amount expended by the board in its production. They also supplied antitoxine to their medical inspectors. They had vaccinated an immense number of persons, a great majority of whom were amply able to pay the private physician for doing this work. In cases in which the persons were too poor to pay for vaccination the city physician should attend to them and the city should pay for it. Dr. Phelps thought that so long as the board of health was engaged in commercial enterprises the medical profession would look with suspicion upon the board's desire for the segregation of tuberculous patients.

Dr. W. C. Phillips thought Dr. Phelps was right in what he had said about antitoxine and vaccine. He certainly thought it was very wrong for the inspectors to go to the schools and vaccinate children whose parents were able to pay for their vaccination. A boy's father had paid the speaker a large fee for an operation, and yet the board of health had vaccinated the boy free.

The chairman, Dr. R. W. Wilcox, said he had gone over this ground many times and had given it special attention during

the last few years, for the action of the board of health had been a burning question. He wished to disclaim any personal feeling toward Dr. Fowler in any remarks that he might make, for whenever an abuse had existed in the board of health Dr. Fowler had had nothing to do with it. There were some things in the board's doings which were not approved of by the medical profession, and last spring the fact had been thoroughly indicated when, at the Academy of Medicine, Dr. A. Jacobi offered a resolution in favor of legislation defining the power of the board. Of course, the board of health had made errors, and we expected them, but the work in the main had been good. Free vaccination should call for protest. He was thoroughly in accord with Dr. Phelps and Dr. Phillips in regard to the commercial enterprises of the board of health. If the board felt it their duty they certainly had the power, should they desire it, to go into the milk, food, beer, or dry goods business; he knew of no power at present that could prevent them, for they were above rule. There were instances of gross and flagrant abuses and inconsistencies, but he thought it due to the commissioners to say that they had performed their duties well, and, as they had not abused their trust in the past, he felt that we could trust the new commissioners also, especially as one of them was a man who, by his fidelity and energy, almost single-handed, had protected New York from the cholera.

Dr. Fowler, responding to the criticisms of his paper, said he had not come to defend the board of health, but to present some of the work done by that body. He was not in favor of the boards of health manufacturing or selling anything. —[Editorial in N. Y. Medical Journal.]

**Arsenic in the Treatment of Cutaneous Maladies.**—Peculiarly—but undoubtedly—arsenic has accepted the foremost place in the armamentarium of the empirical physician, and while this blind confidence has been extended over a considerable space of time it has not been without its results. To-day we are in a fair position to divert it into the proper channels. All through this empiricism the action of the drug has ever been under the critical eye of some acute observer. After many trials we are placed in a position to know just exactly what this or that drug will or will not do. This has been the case with arsenic. All drugs have to pass through the same amount of study, and it is not until they have been tried that we can state their effect. Even to-day this fact can be substantiated in relation to arsenic in the treatment of cutaneous outbreaks. Many affections of the skin are placed under treatment by arsenic and the affected person becomes worse instead of better, and this can be accounted for only by the fact that the drug has been advised injudiciously.

Of the affections of the skin in which arsenic has proved of advantage the number is rather limited, but often we may find that by some complication of the malady it may be wisely incorporated with other measures. I will mention these affections as we progress in our work.

Arsenic is not a new remedy, but yet new fields may be opened to it by more careful observation. That it is a powerful drug and may induce harm if improperly advised is well understood. But carefully given in selected affections it has a decided field of usefulness. This field of usefulness is varied, as will be shown by the many good results following both its internal and external administration. In-

ternally it has a tonic effect, increasing the quality of the blood and thus exerting a restorative influence. Externally it produces inflammation, removes hypertrophies, has a stimulant quality, and destroys abnormal tissue such as is found in epitheliomatous degenerations, lupus, and certain other destructive diseases.

The preparations of arsenic useful in dermatology comprise most of those contained in the Pharmacopœia, but from choice this list is greatly decreased in the work of certain individuals who have found that this or that preparation gives the most satisfaction in the class of cases presented to their view; but still another class of practitioners may receive good results with the preparations thus discarded by their fellows. Internally the arsenous acid and Fowler's solution receive the greater portion of the prescribing in this country, while the acid with liquor arsenicalis play the more important rôle abroad. The liquor arseni et hydrargyri iodidi (Donovan's solution) and liquor sodii arsenatis (Pearson's solution), both have their friends. Externally the arsenous acid does the greater part of the work, while liquor potassii arsenitis (Fowler's solution) often proves advantageous.

Internally arsenic is advisable in affections of the skin which present hypertrophic manifestations such as psoriasis, or where the blood has become changed as in pemphigus. Externally it removes growths of tissue such as in lupus, thus showing a caustic effect, or where degeneration has occurred as in epithelioma.

*Psoriasis.*—This affection is undoubtedly one in which arsenic performs the greatest number of cures, and one in which the drug usually acts beneficially; but as there are cases in which the drug has little if any effect, it is wise to re-

member that it is not judicious to advise it where the disease is in its acute stage, or in those cases in which the remedy has been repeatedly used. Failures often occur by its injudicious administration. The dose required is usually one in which the characteristic effect is neared and usually begins at a small figure, increasing until the desired effect is noticed.

*Lichen Planus.*—This condition also is greatly benefitted by the use of arsenic, and whether it is an acute case or whether the affection is of long standing the drug likewise produces curative results. The dose must be sufficient to affect the condition, and may reach large proportions in some cases. I can recall one in which it was found desirable to give three grains of the arsenous acid during the course of twenty-four hours.

*Eczema.*—Arsenic is rarely ever beneficial in this cutaneous eruption, but occasionally cases do arise in which its effect is welcomed. Those cases of long standing in which all indicated measures have been exhausted and those in which we are confronted with hypertrophic manifestations are both benefitted by its judicious administration. Otherwise it usually does positive harm.

*Acne Acne Rosacea.*—Both of these conditions are affected curatively by the internal use of arsenic, either in the form of arsenous acid or that of the Fowler's solution. In cases of these affections, where there is nervousness present as a complication or where general tonics are called for, the drug is advisable. In those cases in which the type of manifestation is of the popular variety and in which induration is present, or where the pustular form is observed with some thickening around each little lesion, arsenic is demanded.

*Pemphigus.*—Arsenic is one of the few

drugs which have any beneficial effect upon pemphigus, and to get this result it is necessary to begin with a small dose and increase until a distinct impression is made, or at a point where it is noticed that the tolerance of the affected person is reached.

*Furuncles.*—The effect of arsenic upon furuncles is that of a tonic upon the general system. It often does considerable good in cases of incessant furunculosis. It assists materially in placing the person in a position to resist the attack of furuncles.

*Mycosis Fungoides.*—From all of the remedies that have been used in the treatment of mycosis fungoides, the selection of arsenic is the only judicious measure. It may be used internally by the system or by hypodermic injection. Beginning with small doses the quantity is increased gradually until one sees some favorable result. But it is not wise to place too much dependence even in this drug, because many failures will result on account of the great fatality of the affection.

*Erythema Multiforme.*—This remedy performs a very important duty in the treatment of multiform erythema of the more chronic stages, and should be found curative in many cases. The dose should vary with the chronicity of the trouble.

*Vitiligo.*—As vitiligo is an affection of the pigment of the skin it will be found that arsenic often produces some slight results in its restoration, but too much dependence must not be given to it.

*Lichen Ruber.*—Lichen ruber is often benefited by the use of arsenic in its early career, but afterwards no effect is produced by its administration.

*Sarcoma.*—Sarcomatous conditions of the skin have been benefited by the internal administration of arsenic, but the number of failures far outrank the number of cures.

**Epithelioma.**—In the treatment of epithelioma it is possible that arsenic has its greatest field of external usefulness. This fact is made of great importance by the so-called "cancer doctors," who employ it in the treatment of this condition. Of the preparations usually advised there are a number of ointments which may have decided curative properties, but there is an incessant pain produced by its application, and these cancer doctors state that "it is now drawing out the cancer." Marsden's paste is made with arsenous acid and gum acacia, and is one of the best measures that may be adopted. If patients will stand the pain—and there are a great many that would rather than have an operation—a cure may be expected, but it may be necessary to keep the application in contact for an indefinite period or numerous delays in treatment must be occasioned by this excessive pain, thus prolonging the case for a very long period.

**Lupus Erythematosus.**—The external application of Fowler's solution has cured some cases of lupus erythematosus. The first condition produced by this remedy is an inflammation, which gradually subsides, with possibly a marked change in the lupus area. It cannot be relied on in many cases.

Other than in the diseases mentioned above arsenic has little or no effect, and it is not wise to waste time in prescribing it. Occasionally cases will arise in which it may be judiciously given.—[Therapeutic Gazette.]

**"Send Them To Bed."**—One of the most frequent results of la grippe is an increased susceptibility to taking cold. An exposure which could formerly be made with immunity is likely to result in coryza, cough, influenza, or rheumatism. In a few weeks nothing

will be more common in the everyday experience of a physician than for a patient to say, "Doctor, I have taken cold, and it has settled in my lungs, throat or joints." If these cases are treated promptly a few days will suffice for a cure, while delay or neglect will mean weeks of discomfort. When the attack is a mild one the patient will usually desire to be up and attending to business. The advice of Professor Tyson, of the University of Pennsylvania, is good: "Treat every case as though it were going to be a serious one, and order them to bed at once." This and only this will insure a victory over the disease. A speedy cure is possible in a few days in the majority of cases if the latter course is adopted. The most of these cases of "colds" appears in the form of an influenza, with aching of limbs, debility, and a slight rise in temperature. The indications for treatment are to relieve pain, sustain strength and to reduce the fever. There is nothing that will accomplish these results better and quicker, than the administration of quinacetine-sulphate in doses of from 5 to 10 grains every two or four hours, the larger dose being given when pain is a prominent symptom. This drug exerts a strong antipyretic action, allays nervous irritability, and acts quickly in reducing the abnormal temperature.—Mass. Med. Jour.

**Non-Surgical Treatment of Boils, Carbuncles and Felons.**—In the British Medical Journal of October 2, 1897, L. Duncan Bulkley, of New York, publishes a paper on this subject, and first emphasizes the important fact that patients with boils, carbuncles and felons are never in perfect health, although it is sometimes difficult to discover exactly on what particular departure from health the condition depends; patient investiga-

tion, however, will generally afford the line upon which successful treatment will rest. Iron is most commonly needed, but quite as often there will be digestive and assimilative difficulties also to be overcome. Sometimes the cause lies only in overwork or worry; often in dissipation, though of a relatively harmless kind, involving late hours and irregular eating. The author cannot help dwelling as strongly as possible on this constitutional aspect of the question, for in this he finds himself at variance with much that is taught even in the best modern text-books. In them this aspect appears to be regarded apparently as of relatively minor importance compared to the local treatment, whereas he regards it as of the first importance as compared to the relatively simple local treatment about to be described, which he has found thoroughly satisfactory.

The combination of iron which he has most commonly used in these affections is one which is known to us as Startin's mixture, somewhat according to the following formula:

**R** Ferri sulphatis, 1 dram;  
Magnesiæ sulphatis, 6 drams;  
Acidi sulphurici diluti, 4 drams;  
Syrupi zingiberis, 4 drams;  
Aqua, ad 3 ounces.

**M.** Sig: One teaspoonful in water through a tube after meals.

Unless there is some counter-indication he generally begins treatment also with a good mercurial purge:

**R** Massæ hydrargyri,  
Extracti colocynth. co., of each 10 grains,  
Pulv. ipecac, 2 grains.

**M.** Div. in pil. No. iv. Take two at night and two on the second night after.

These four pills are generally repeated at the end of a week, and perhaps in other successive weeks.

Sulphide of calcium, if a perfectly fresh and good article and properly used, has

in the author's experience a very decided and controlling effect over the process of suppuration. He always gives it in gelatin-coated pills, which he tests himself, for occasionally the drug will be found quite ineffective from having changed to the sulphate of lime or gypsum. To be efficient it should be given freely, one-fourth grain every two hours—say eight or ten doses in the day; this in connection with the iron tonic.

With these measures and a most careful attention to the diet and mode of life, the tendency to the suppurative process may generally be quickly overcome, as he has observed almost daily for many years.

The local treatment of the diseases under consideration which he has found very satisfactory differs materially from that commonly laid down, but can be briefly described. We will consider each affection separately:

1. *Furunculi*.—The objects aimed at by the treatment are: first, soothing and protecting an inflamed area; second, exclusion of air; and third, a slight antiseptic action. For this purpose a moderately thick layer of absorbent cotton is taken, several times the size of the inflamed surface: for a medium-sized boil a piece one by two inches, with the fibres running the long way. Upon the center of the cotton a considerable mass of the following ointment is spread by means of a spatula, and this is then laid over the boil, and held in place by strips of adhesive plaster across the ends, but not passing over the boil. The ointment referred to is generally composed about as follows:

**R** Acidi carbolici, 5 to 10 grains;  
Ext. ergotæ fld., 1 to 2 drams;  
Pulv. amyli, 2 drams;  
Zinci oxidi, 2 drams;  
Unguent. aquæ rosæ, 1 ounce.

**M.** Ft. unguent.

The relief given by this dressing is often very marked; the ointment soothes and protects the irritated surface, while the layers of cotton take up any outside friction. If comfortable, and unless disturbed, this dressing remains untouched twelve or more hours, when it is removed and a freshly spread piece immediately reapplied. If there has been any discharge the surface may be very gently cleansed with absorbent cotton, but he does not allow any squeezing. In many instances with proper internal and general treatment the boil aborts, and subsides without discharging; when this does not happen, it ruptures spontaneously in a relatively short time, and he practically never finds it necessary to incise it. This treatment he uses in all stages of boils, keeping the ointment on until the boil is quite healed. If other boils form he directs it to be applied early, and by this means they are frequently aborted. He wishes he could express in a measure some of the delight expressed by patients when thus dressed in the comfort and relief obtained, as compared with the sensations and results from other treatment which they have previously had. We should, he thinks, seek for the *jocunde* in our treatment as well as the *cito* and *tuto*, and from no small experience he can say that this treatment acts quite as quickly and surely as it does pleasantly.

2. *Carbuncles*.—As a carbuncle is in reality but a large boil, or a conglomeration of boils (with, of course, certain anatomical differences), the local treatment with the author has been much the same as that just described. Both early and late in the disease he has put on an ointment like the above, thickly spread on cotton, and fastened at the ends with strips of adhesive plaster. Not only on the back of the neck, but also on the face and elsewhere, this dressing proves most

comfortable and serviceable, and he has not had occasion to incise a carbuncle since November, 1882—nearly fifteen years ago. The patient died from this and other complications, but there has not been a single case with such result in his practice since. He has applied this treatment to some large and formidable carbuncles, and has always thus far found that the pus would find exit rapidly enough, and the healing progress satisfactorily with this dressing. Occasionally it is necessary to aid in its expulsion by very slight squeezing or by removal of sloughs with the forceps. On some occasions febrile and other symptoms have at times seemed to warrant more active interference with the knife, but, although urged to it in consultation, he has adhered to this plan of treatment, without incision, and has obtained results which warranted its continued employment; and from previous experiences with cutting, and from cases thus treated by others, he believes that the method suggested has the preference, both as to time occupied and final results, whereas on the point of pain and general comfort of the treatment it is far superior. He is quite prepared to admit, however, that possibly from neglect or other cause a very large suppurating carbunculous area might be formed which would demand very active surgical procedure, such as curetting, or even excision, with antiseptic dressing, but under the treatment outlined this has never occurred.

3. *Felons*.—It will no doubt excite surprise and criticism when he urges somewhat the same line of treatment for the various degrees of inflammation about the ends of the fingers which are known as paronychia, whitlow and felon; but, having treated a very considerable number of cases in this manner during the last fifteen or twenty years, he is pre-

pared to advocate it strongly. The cases referred to include not only those of superficial character, about the nail, but also those very deep seated, on the pulp of the finger, even when there had already been sleepless nights from the deep-seated throbbing. The ointment used here has always been the diachylon, or litharge ointment, prepared according to the formula of Hebra. This particular form of ointment he considers to be important, for he has not found such good results from that made by melting the diachylon plaster with oil of vaselin, as more recently proposed. The diachylon ointment of Hebra is prepared as follows:

R Olei olivarum optimi, 15 drams;  
Plumbi oxide, 3 to 6 drams;  
Olei lavandulae, 2 drams.

M. Add the oil to two pounds of water, with constant stirring; the litharge is to be slowly sifted in while it is well stirred, fresh water being added as required. The ointment is to be stirred until cold, and the lavender added.

In winter a slightly larger quantity of oil is required to make a soft ointment. When properly made (and this is difficult to secure), this ointment is of a soft, buttery consistency, and quite sticky. The affected finger is to be plunged into the jar and a considerable quantity taken up, completely enveloping the first joint to a thickness of one-fourth of an inch. Over this are placed layers of absorbent cotton, and the whole loosely bound; sometimes it is more agreeable to spread the ointment on the cotton. It is generally desirable to renew the dressing about twice daily, but this is done with as little disturbance to the finger as possible, the old ointment being hardly disturbed, unless there is pus discharged.

The author cannot fully explain the benefit obtained by this dressing; but time and again he has seen the greatest relief, even after sleepless nights had been

passed, and for many years he has prescribed this treatment with the greatest satisfaction and confidence. When applied earlier and in milder cases resolution takes place and no pus appears. But in those cases which are seen later or which are more severe pus forms and readily reaches the surface, and is either discharged spontaneously or by means of a painless prick through the dead skin. He has never had occasion to make the well known deep incision, even in certain cases where it seemed at first as if this would be required. He has repeatedly been surprised at the ease with which the pus has reached the surface. As remarked before, when it was necessary to aid its exit, this was done with a very superficial prick, entirely painless, and he has never seen any scar resulting.

It is quite possible that the most severe cases have not come under the author's observation, and he quite agrees that when pus has formed deep in the tissues and is burrowing under the tight fibrous bands which cross the tendons, a free surgical opening may be called for. But if taken reasonably early and the treatment intelligently carried out, he believes that in a very large proportion of cases the course will be such as he has before described.—[Therapeutic Gazette.]

#### Cold-Air Treatment of Typhoid Fever.—

J. Murray-Gibbes writes on this topic in "The Australian Medical Gazette." The doctor commences by telling us that the subject matter of his paper comes under the head of artificial ærotherapeutics, or, to use a shorter word, ærotherapy. The success which has attended the treatment of typhoid fever by means of cold baths caused him to consider whether we could not attain a like, or even more successful, result by means less cumbersome than that of placing the

patient in a succession of cold baths. Having this idea in view he addressed a letter to Mr. W. W. Crawford, of Sydney, an eminent refrigerating engineer, asking whether he could suggest for use in hospitals a better system for lowering the temperature of fever patients than that of a succession of cold baths; the temperature to be reduced from say, 103° F. to 100° or 101° F.

In reply Mr. Crawford wrote to the effect that there was nothing to prevent the fever ward in hospitals being fitted up in such manner as to permit of the reduction of temperature of any compartment down to as low as 5° F., or its maintenance at any figure between that and the temperature of the external air by the mere turning of a tap, with the necessary machinery upon the grounds, the cost of which would be within the means of a small hospital to meet. Such have usually a steam boiler, probably in connection with the pump. It would be only needful to lay down a small freezing machine, and connect it with the fever ward—which would have to be insulated—by means of pipes, through which chloride of calcium brine circulates, abstracting both moisture and heat from the room, a tap regulating the flow. The machine is simple, and, in addition to the service indicated, it would make ice for the use of the hospital. It could have attachments by flexible tubing for local applications of cold. In the case of ice only one temperature—viz., 32° F.—can be obtained, but with brine circulation any temperature within the range of the machine, either above or below the freezing point, may be reached. Expense puts ether out of court. Drawings, etc., could be forwarded, so as to give the hospital authorities full particulars, for which no professional charge would be made by him.

The advantages of the cold-air treatment of fever are the following:

No handling of the patient is necessary.

He will lie on a tube mattress, and be covered by another, through which tubes will flow a cooling mixture when required to lower the temperature. There is no doubt that experience will prove that this should be a continuous current, so that the temperature of the body can be prevented from rising above a certain degree.

Experience has taught that the cold treatment of typhoid, to be useful, must be carried out "systematically and with vigor," and that "patients endured this repeated withdrawal of heat without experiencing any bad effects." Riegel proved that ice-bags on the chest and abdomen was less debilitating than cold baths, and the cold-air treatment will be found even less so.

The shock to nervous persons of being placed in a cold bath is avoided.

Attached to the cold water tube will be another, which can convey hot water from a hot water source, so that warm water can at first flow through the tubular mattress, and then, by means of taps, the temperature of the water can be gradually lowered to the required degree. As to the degree of coldness of the freezing mixture, experience will have to prove this. Leube, in 1871, laid patients on large pillows containing a freezing mixture of ice and salt of the temperature of about 14° F.

The method of treatment the writer proposes has great advantages over previous ones, in that we can have any temperature we wish "down to so low as 5° F., and its maintenance at any figure between that and the temperature of the external air by the mere turning of a tap." Besides this we



can also, by turning another tap, have hot water to pass through the same tubes when necessary in the treatment of any disease.

We can keep a patient for any length of time surrounded by a cold atmosphere, continually abstracting heat, and so preventing him from rising to a dangerous temperature, and that without disturbing him. Cold water tubes can be placed on any part of the body where necessary, as in disease of the chest.

Dr. Barr, in 1891, advocated "prolonged immersion in a tank bath" from six to thirty-one days, and pass all discharges into the bath. The present treatment has advantages over this, while the effect is the same, without any of its obvious disadvantages.

We are told that "constancy of temperature depends upon the power which the organism possesses of so controlling the production or loss, or both, that the normal temperature shall not fluctuate in any direction; that in fever this power of control is so impaired or weakened as to make it inadequate for its purpose, consequently the organism loses its power of keeping itself at a normal temperature." Also that "the true danger in typhoid fever consists in the deleterious influence of a high temperature on the tissues. Nearly fifty per cent. of the deaths are due to the direct influence of an elevated temperature, and in the remainder the same influence has a share in producing the complications, or in bringing about the fatal results; so, if we could guard our patients against the deleterious influence of excessive animal heat, typhoid fever would no longer belong among the specially dangerous diseases."

Leibermeister wrote: "It is as a matter of course entirely immaterial in what way the abstraction of heat is accomplished, provided that a sufficient amount of ca-

loric is actually withdrawn from the body. On the whole, those means will be found preferable which achieve the desired result with the least inconvenience to the patient."

This being his opinion, an opinion all must concur with, there can be no doubt that the cold air treatment proposed will of typhoid, and so greatly lessen the keep down the high temperature death-rate, and can be carried out without inconveniencing the patient in the least.

As the temperature of typhoid patients is generally higher during the night than during the day, the cold-air treatment can be easier carried out, owing to the nursing staff being less during that time, and assistance not easily to be obtained.

The simple turning of a tap cannot be compared with the trouble entailed on the hospital staff in providing a cold bath. In fact, one nurse could attend to a dozen patients with less trouble than to one under the old treatment.

In other complaints the freezing air treatment must prove invaluable, such as sunstroke, and local congestions and inflammations of the chest, etc. Tube pads of various shapes could be made to fit different parts of the body for conveying hot or cold water.—[Therapeutic Gazette.]

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**Facial Manifestations of Diseases.**—The object of this paper is to draw closer attention to some local and general diseases, which are so clearly manifested in the face, that a reasonable diagnosis may be made by more thorough observation.

That physicians do not obtain the full measure of usefulness from symptoms presented by the face, will be quite generally conceded. Perhaps they fall in error by "sighting what's near through aiming at what's far." Medicine, in this

way, is not unlike other occupations, wherein to accomplish an end, we throw aside the simple and more natural aids and take upon ourselves a perplexity of devices, which serve only to make more difficult an otherwise easy task. That many diseases are more clearly defined by examining other symptoms than those presented in the face, the writer does not deny, nor does he presume to affirm that there are no diseases in which, by a sole reliance upon the face for a diagnosis, a wrong opinion would be formed. In considering, therefore, this paper presented, it is not the intention to decry other characteristic manifestations of disease in other parts of the body, but simply to lay stress upon the great impressions and reflections of disease which are patent upon the face.

Dr. George B. Wood, in writing of facial expression, says: "It is occasionally almost our sole dependence in diagnosis." Through it we sometimes recognize the existence of pain, insanity, or even in a general way, pectoral or abdominal diseases, when other signs are either wanting, obscure or not available.

The face is but a mirror in which is reflected all degrees of ill-health from that which amounts only to temporary indisposition and depression up to the gravest cachexiæ. Often the mental tendencies and habits of the patient, his temperament or pathological processes going on in other parts of the body, are seen depicted in the changed expression. There you may find the precursor of a convalescence, or the harbinger of a decay. In peritonitis, croupous pneumonia and severe internal injuries, the expression of anxiety may be manifest, when patient and friends are speaking of improvement.

Many diseases are attended with a characteristic aspect of countenance, which will often be recognized by the ex-

perienced, so far, at least, as to suggest the disease to his mind. The pallid face and lips, the anxious look, the restless eye, tell, even before the finger is put upon the pulse of the loss of blood. The pinched nose, the sunken eyes, ashy-colored countenance, with perhaps beads of sweat upon it speak of suffering or pronounced sepsis. The pale face of chlorosis, the puffy waxy countenance of Bright's disease, the bloated heavy look of myxedema are not less characteristic than the bronzed hue of Addison's disease, the prominence of the eyeballs of Graves' disease, or the yellow tint of jaundice.

The typical disfigurement of one suffering with naso-pharyngeal adenoids is very marked. There is a seeming prominence and puffiness of the cheeks and nasal bones, which causes the eyes to look heavy and sunken. The constantly open mouth and a certain stupid expression of countenance, are characteristic symptoms of post nasal growths.

It is stated that Dr. John Guiteras judges from his first look at the face of a suspect of yellow fever, whether he has to deal with a genuine case. So reliant has he become of this impression, that he finds in nearly all cases his first hypothesis is but made more positive by a systematic examination.

The color, shape and various movements of the face often yield important indications. Thus a bright-red color signifies one thing; a dark-red, a mahogany-color, a purple, or violet color, another. In the former, the blood is duly arterialized; in the latter, it is unduly carbonaceous and probably detained by some obstruction to its return. Paleness may signify anemia, syncope, leucocythemia, dropsy, nausea, etc.; and there are different kinds of paleness, having different meanings, as that of

acute pleurisy, cancer, etc. The size of the face is often very considerably altered in disease. It is apparently augmented in apoplexy, acute mania, convulsions, especially epilepsy, in obstructive diseases of the heart, particularly those accompanied with dropsy, in pneumonia, in the acute stages of periodic, continued or exanthematous fevers. The size of the face is diminished, the features being shrunk or pinched, in the cold stages of periodic fevers, in exhaustive diarrhoea or dysentery, in phthisis and splenic leukæmia, etc. When exhaustion has become extreme and collapse is threatened, we have the *facies Hippocratica*: the nose sharp, the eyebrows knitted, eyes hollow and sunken, the ears cold, contracted, and their lobes shrivelled; the skin about the forehead hard, tense, dry, and the face pale or of a greenish livid, or leaden hue.

Full-blooded persons disposed to endarterial changes frequently as the result of gout, have, at a little distance, the ruddy appearance of blooming health. Closer inspection, however, shows that the ruddy color is due to a dilated or congested condition of the minute blood vessels. This condition, when associated with high tension in the arteries, is highly suggestive of chronic nephritis. In the aged, or in cirrhosis or obstruction of the hepatic circulation, a capillary congestion of the nose is often noticed.

Inspection is even more important in the case of children than in adults. The pale, pinched, weazened face of some babies, who have snuffles, ulcers at corner of mouth, and look prematurely aged, is characteristic of constitutional syphilis; likewise in the "saddle nose," arising from necrosis or removal of a part of the bony framework of the nose. In rickets, the head is usually large, square in shape, projecting forehead with

large non-bulging fontanelles. In hydrocephalus, the head becomes very much enlarged, is rounded or globular in shape, the fontanelles large, tense and bulging, the eyes prominent, the bones of the face small, the expression vacant. According to Eustace Smith, pain in the head in children is indicated by contraction of the brows; pain in the chest by sharpness of the nostrils, and in the belly, by a drawing of the upper lip. A healthy infant, when awake and well fed, is always kicking or cooing and moving its arms about, and has a happy expression on its face; whereas if any cerebral trouble is present, it often has an anxious frown, its hands are placed to the side of its head or rubbed over the vertex. Constant screaming is nearly always due to the pain of earache or hunger, for abdominal colic is usually intermittent.

And so we may go on enumerating the features of disease as they appear in the face, not only in the old, but the young. By a glance, we can ascertain whether our patient has changed for the better or worse in our absence. The brightening eye, the fading dusky hue, the closed mouth and moist lips, tell without other signs of the typhoid's progress. The pallor of anæmia and of carcinoma, the blueness of cyanosis, the puffiness of renal disease, the bloated face with tuberosus nose of the alcoholic; the dropping, often trembling lid of the hysterical; the staring vacant look of the facial paralytic, with the smoothened out, glazed appearance of the affected side, all tell their tales to the careful observer.

What, asks Fothergill, is this subtle, incommunicable power to read facial indications that some practitioners excel so in prognosis; they can give no explanation beyond "You can see it in the face;" but what that "it" is they cannot tell. Nevertheless, they can both see

it and read its interpretation. Experience leads an easy way to this crafty knowledge, and the older physician has gained this ability by long training to grasp much of the essential details of a case by a mere glance at the face of his patient.—[Jas. D. Morgan, in the *Virginia Medical Semi-Monthly*.]

**The Treatment of Inebriety.**—Dr. A. L. Benedict of Buffalo, N. Y., contributes the following to the *Therapeutic Gazette*:

It is somewhat inconsistent that the person overcome by one drug should be in a different legal status from that of the one under the influence of another; yet the frequency of alcoholic intoxication, its tremendous financial and social effects, and the organized effort to warn against indulgence in this drug, justify the state in using means which it does not apply to the victim of the morphine or cocaine or other narcotic habit. Thus, while personally admitting that alcoholism is a disease, we believe that it is practically necessary to consider it as a crime also.

It is impossible to draw the line between the fool and the imbecile, between the wicked and the moral pervert, between the man who is quick tempered and the one who is hysterical, between the man of weak will and the one dominated by habit. Yet the practical appreciation of degrees of difference which cannot be interpreted in any general terms is what gives one a superior understanding of the means to be employed in the treatment of the inebriate. It must be remembered that inebriety is not the same condition in all persons. The practical management of the case depends on the answer to these questions, which are often badly confused by temperance speakers: Does the man drink from love of the taste of liquor?

Does he drink from love of the physiological effect? Does he drink because his life is so miserable that partial or complete unconsciousness is pleasanter than sentient existence? Does he drink because, for none of these reasons, alcohol possesses a mastery over him which he cannot shake off? Strange as it may seem to some abstainers, a man seldom uses liquor to excess because he likes the taste of it, as he would like fruit or candy or some more substantial article of diet and, therefore, would eat too much of it. Much more frequently alcoholism is sought to the degree of mild stimulation, and the partaker, having lost some of his power of self-control, then continues to imbibe and passes into a stage which, of itself, has no attraction for him and often is positively revolting to his tastes and judgment when he is capable of sober thought. When a man, or woman, uses liquor for the sake of obtaining oblivion, the hope of cure is small. It is evident that if the individual's personality has become so distasteful to himself that he cannot endure self-association, that his memories are bitter and tinged with disgrace, the temptation to drown those memories will recur, in spite of treatment; and, humanly speaking, the cure of the alcohol habit is worse than the disease. Cure in such cases is simply a matter of asceticism, unless the primary cause of inebriety has changed to one of the other motives to drink which we have mentioned. In not a few instances persons who like neither the taste nor the action of alcohol, and who are not drawn into the habit from mere social motives, are unable to resist the attractions of liquor. If we could be sure of the good faith of persons who sue for damages claiming to have been influenced by hypnotic power to perform acts contrary to their volition, we should

have a close analogue to this form of inebriety. Sometimes the social element seems to be almost the only factor in producing inebriety, the patient suffering relapses only from the more or less deliberate temptation of acquaintances. Sometimes, too, several causes act simultaneously to determine over-indulgence in alcoholic beverages.

If we can be sure that the case in question is of the comparatively rare type of taste-attraction, two courses are open: we can either give some comparatively harmless substance which shall serve as a substitute, or we can make the liquor itself distasteful by combining with it some nauseous substance which shall produce so profound a mental impression as ever afterward to be associated with the taste of the liquor, or we can simply tire the patient of the liquor by giving it protractedly without resting the taste-bulbs by other impressions. The first method consists in the use of some pungent gum or fruity substance or chocolate, the stimulation of the alcohol being represented by iris, capsicum, caryophyllus, etc. The second method is carried out by mixing almost any emetic with the liquor, being careful not to defeat our end by obtaining too prompt emesis. The third method is used in some of the prisons of Scandinavian countries, the culprit and patient being fed with bread dipped in wine till the alcoholic liquor becomes loathsome. It is said that this method is curative even when the cause of inebriety is something else than the gratification of taste. We fear, however, that the loathing would soon disappear, just as it does when disgust at some solid food has been appeased by variety.

In other cases, we believe that the secret of success consists in substituting for the will of the patient some effective means of control, actual confinement being

usually necessary. The Keeley institutes have most happily combined surveillance without actual incarceration, suggestion, stimulation of the patient's own will-power, supporting medication, and medication tended to excite disgust at the taste of liquor. That they are unethical there is no question; that they have done some good no impartial observer can deny; that they have not always cured is established by numerous recorded back-slidings. The patient loses his desire for whisky and apomorphine, and, fortunately, he is a long time in learning that the drink of whisky and the injection of apomorphine are independent factors which may be separated outside the hospital. He is thoroughly imbued with the fear that a return to alcoholic beverages will prove immediately fatal, and it takes him months before he overcomes this fear or is tempted into testing its validity. Once having learned that the fear is groundless, some relapse into drunkenness; others have so far recovered their will-power and their self-respect that they continue "cured." As regards drugs, strychnine and atropine fulfil all but special indications for supplying the "bracing" effect of alcohol, as far as anything on earth can take the place of alcohol for one who has learned to use it to excess.

We believe that there is urgent need for institutions midway between hospitals and penitentiaries, at which every one can be treated for alcoholism, according to his means. We believe that, without the expense of the so-called "cures" and without their objectionable methods of dealing with ethical questions, institutions may be conducted which shall be under the management of competent members of the regular profession and which will secure good results in relieving those who really de-

sire to be cured and are willing to lend their own efforts to support those of the physician.

Finally, unprofessional as it may seem to advocate that physicians should make personal use of physiologic and hygienic knowledge, we would remind our readers that our own profession is one of the most important sources of drunkards, and that the danger which has been realized in their case is potentially present in that of every "moderate drinker." Plainly speaking, we believe it is disgraceful that nine-tenths of our profession should use alcoholic liquors purely as beverages.

**Parrots as Sources of Tubercular Infection.**—Broncho-pneumonia, according to the Medical Times, has assumed almost an epidemic form in Genoa, Italy, caused, it is believed, by infected parrots brought from Barzil. Fourteen persons have been attacked by it, and eight have died. The susceptibility of the parrot to all lung diseases, above all to tuberculosis, is being widely discussed by the medical journals. In Berlin the profession has long been alive to the danger of harboring and petting the parrot, as the malady is often hereditary in the bird, and is aggravated by the close confinement of the voyage to Europe. Even after arrival, it is, for the most part, exposed to unsanitary conditions, under which it contracts tuberculosis and broncho-pneumonia from human sufferers from these ailments. The veterinary school has had 154 parrots under observation, and fifty-four of them have been found by bacteriologic tests to be suffering from advanced tuberculous.

**Abortive Treatment of Endometritis with the Vapors of Bromine.**—Nitot remarks that the true prophylaxis of parenchymatous metritis and chronic sal-

pingitis consists in curing recent endometritis while the inflammation is still superficial, with some substance that will penetrate to the remotest crevices in the uterus and even into the tubes, extremely antiseptic, diffusible and endowed with anticatarrhal properties sufficient to modify without injuring the tissues. Bromine, which is soluble in water and disengages vapors at the ordinary temperature, is endowed with all these properties. A bottle with a double current sound attached is filled with a saturated solution of bromine; air is forced into the bottle by a bulb entering the bottom. The results attained with this simple treatment have been extremely satisfactory, as the healing vapors reach every point of the surface with sufficient force, and none of the disadvantages of a liquid. —Journ. de Méd. de Paris.

**Bedroom Sanitation.**—The "Ohio Sanitary Bulletin" says: "No room in the dwelling exercises a more potent influence for or against health than the bedroom, excepting possibly the kitchen. The parlor is seldom occupied; the library and sitting-room may be used for several hours each day, especially by the mother and children, but not continuously. Besides, these rooms generally have open fire places, which, with the constant opening and shutting of doors, tend to promote good ventilation. The bedroom is occupied for eight or nine hours of each twenty-four and during the time when vitality is at the lowest ebb and injurious influences therefore most potent.

"It is customary with some to have a light burning all night in the bedroom. This is usually a lamp or gas light turned low. This adds greatly to the impurities of the atmosphere and necessitates the

bringing in of much larger volumes of fresh air, if we are to keep near the standard of purity. The light is also objectionable on account of the eyes, as previously stated, and most persons have a sounder and more refreshing sleep in darkness than in light.

"We may say then that our bedrooms should be moderately heated, and that opportunity for fresh air should be given, and by open windows, if necessary. It is usually better to do this by lowering the upper sash. In planning the room the position of the windows and bed should be so arranged that window ventilation can be accomplished without exposing the sleeper to direct draughts. We need have no fear of that bugaboo, night air. Night air is just as wholesome as day air, and in cities is apt to be more so, as being not so much exposed to pollution by reason of travel on the streets.

"The location of the bedroom should be such as to admit direct sunshine at least a part of each day. There is no more powerful microbe slayer than sunshine, and the more of it and fresh air we can have in our dwelling houses the less need will there be for the doctor.

"The careful housewife will see that her bed and bed clothing are aired each day, and frequently hung on lines out-of-doors to be exposed to the sun. The furniture of a bedroom should be as simple as possible. Rugs, which may be large enough to cover most of the floor, should be used instead of carpets, as being much easier kept clean and free from dust. Heavy curtains, upholstered chairs and other dust-catching and retaining contrivances should have no place in a sleeping room.

"All that has been said may be summed up in fresh air, sunlight and perfect cleanliness,"—Public Health.

### **The Pest-Stratum of the Sites of Cities.**

—Dr. Robert Barnes, who as long ago as 1855, was a health official for a part of London, in "Scalpel," treats of the dangerous properties of the superficial soil of cities, the careful future investigation of which will solve some of the mysteries of high civic mortalities. We agree with him that we do well to labor with the outstanding problems of water-supply, but as they will presently be mastered, the problems of the soil will become urgent and, as they too are solved, life-saving will begin in good earnest. Dr. Barnes says: "One of the most striking examples of the influence of soil, and soil governs water and air, is the generation of ague. Ague was at one time endemic in Shore-ditch, but it has vanished. So we may reason that unhealthy sites may be made healthy by care; but it is not less true that sites, naturally the most salubrious, may by neglect become pestiferous and deadly. I showed that we were chiefly concerned with the soil to the depth of thirty feet. Proceeding from the surface we had a bed of variable thickness, commonly called 'made earth.' It is chiefly an artificial stratum. The proportions of 'virgin soil' to that of common earth had been reduced to a very insignificant amount. The great bulk was made up of refuse of every kind. . . This upper stratum so constituted had been further polluted, and its noxious qualities intensified, by innumerable perforations for cesspools, and constant saturation from defective sewers and drains, the poisonous emanations from gas-pipes, and every conceivable abomination resulting from the offscourings of a population of 25,000. This layer of foul stuff, or pest-stratum, as it may appropriately be called, varied in thickness from one or two to sixteen feet or more. This description of the pest-

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According to the 34th annual report of the hospital authorities (see page 73, *Harper Hospital Bulletin* for February, 1898) the antitoxin treatment of 141 cases during 1897 yields the following showing:

	Cases	Deaths
Ordinary Diphtheria . . . . .	115	1
Laryngeal Diphtheria . . . . .	26	6
	<hr/> 141	<hr/> 7
Excluding 2 cases moribund on admission . . . . .	2	2
	<hr/> 139	<hr/> 5

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stratum is a very important contribution to geology. This last stratum, the work of man, has to be cleared away. This done, geology reverts to its primeval natural purity. Another observation may be pardoned. If this pest-stratum, laden as it is with putrescent matter, could be kept dry, it would be comparatively harmless. Moisture is a necessary element for the evolution of its pestiferous properties. Hence good surface drainage is not less necessary than deep drainage. And we may see a happy illustration of this in the present condition of the city and the more perfect districts of London. The paving and other means for securing quick surface drainage not only lessen the emanation of foul air from the surface, and the soil beneath, but they also promote the dryness of the air. The relative humidity of the air in London is often less than in the country. This is especially marked at night. There is little or no dew. The dry surface gives off no moisture for precipitation. And so we get in London the luxury of clear, dry, fresh air at night to a degree hardly known in many parts of the country. Doctors who have experience of night work have found this out. A practical lesson from this is: That windows may often be opened at night in London with benefit, when in the country, where grass is near, the practice is fraught with danger. I have had many proofs of this in country consultations. To secure this surface drainage and cleanliness to the greatest extent it is essential that the material for pavements be solid and impermeable to moisture. Flagstones and asphalt fulfill these conditions. Wood pavement, pleasant as it is in some respects, does not. It absorbs damp filth and gives off foul air and dust. The population actually living on the bosom of the Thames, whose every breath is a dis-

tillation from its water, is not especially liable to fever; not so much so, indeed, as the population whose dwellings skirt the banks. And this littoral population, it must be borne in mind, is exposed not only to the malaria arising from the banks, but also to that same class of pernicious influences attached to bad sites and badly constructed houses, which are found alone sufficient to generate fever. Few of the seamen who filled the medical deck of the Dreadnought contracted their illness on the river under circumstances which can be connected with the state of the waters; and of these few it will be found that the illness of most could be traced to cold, wet, exhaustion, bad food, drinking bad water, and overcrowding in the close ill-ventilated forecastles of unhealthy ships. Most erroneous assumptions still continue to guide the exertions of those who are most earnest in favor of the present scheme of what is called the dispollution of the Thames. I had studied the Gulf Stream as it flows in a distant current across the Atlantic; I had seen the Plata propelling its stream of fresh water unmingled many miles into the ocean; I had traced the confluence of the Rhine and the Main, whose streams are colored, one red, the other green, running on side by side, two rivers in one bed, and I concluded that the great sewage stream would hold its course, a concentration of pollution. Sir John Simon, in his admirable reports, expressed conclusions in harmony with the above and with the evidence adduced in my observations on the Thames, read before the British Association at Dublin. In this memoir, based upon examinations of the Thames water, of which samples were taken weekly during the whole year, at high and low water, from alongside the Dreadnought, I was assisted in the

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chemic side by Odling, and Hassall in the microscopical side. During the construction of the easternmost main sewer I had an opportunity, I will not say of enjoying, but of experiencing a festivity under conditions which few excepting professional sewer-men, can appreciate. I accompanied a committee of my vestry and the surveyor in an official survey of the sewer. We descended into this subterranean canal by a hole near St. Luke's Asylum, walked along as best we could, breathing the balmy sewerage air, to a point at the East End of London, where we emerged. It is needless to say that as a safeguard against accidents, we took with us a supply of alcohol; and, to make our visit and report more picturesque, we stopped on our way and had lunch with what appetite we could muster. This experience taught us, I hope, to look with indulgence upon the occasional breach of the law of temperance by professional sewer-men. On coming into the free air above I felt as I fancy Dante felt on passing from the Inferno into Paradise. No one was the worse for the adventure."—The Journal.

**Fruit Eating.**—Each year people grow to appreciate more fully the value of fruit, and eat it, not as a luxury, but as a staple article of food. Fruits are nourishing, refreshing, appetizing and purifying, and consequently have effect upon the health and the complexion. Yet there are differences. Grapes and apples are highly nutritious. Grapes usually agree with the most delicate persons, for they are so easily digested. Nothing is easier to digest than a baked apple, taken either with or without cream. Oranges, lemons and limes are of great value as a means of improving the complexion, and they are especially good if taken before breakfast. Ripe peaches are easy of di-

gestion and are fattening. Nothing is better to enrich the blood than strawberries, which contain a larger percentage of iron than any other fruit. Fruit with firm flesh, like apples, cherries or plums, should be thoroughly masticated, otherwise they are difficult to digest. The skin of raw fruit should never be eaten, and before eating grapes or any small fruit care should be taken to remove all impurities by washing. Never swallow grape stones. Stale fruit and unripe fruit should never be eaten, and very acid fruit should not be taken with farinaceous foods unless the person has vigorous digestion.—The Sanitarian.

**Mortality in Infants' Hospital.**—The fearful mortality among the children in the Infants' Hospital in this city is set forth in the annual report of the Visiting Committee of the State Charities Aid Association in a way that deserves more than local attention. The children are so classified as to bring out the real cause of the shocking death-rate among them. For those under two years the summary is as follows:

	Death-Rate.
Foundlings.....	80 per cent.
Other babies received without their mothers.....	59 per cent.
Children received with their mothers.....	13 per cent.

Even this table does not fully set forth the mortality among the children not cared for by their own mothers. Of 366 such infants received during 1896 under six months of age, the number still living on April 15, 1897, was only 12—a mortality of 96 7-10 per cent. To the city of New York these shameful conditions cry out for the granting of the Visiting Committee's demand for "at least twice as many nurses, comfortable quarters, and proper food;" but to the nation

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at large they suggest that, whatever the ability of the state to care for the education of older children, it is signally unable to furnish any substitute for the mother's love in the care of infants.—The Outlook.

**Mortality and Hereditary Syphilis in Children of Prostitutes.**—It has been a regulation in Hamburg, for twenty-seven years, that every prostitute confined at the public hospital must bring her child to the city physician every month or oftener for examination until it is a year old. S. Werner publishes a report of the results in the *Woch. f. park. Derm.*, Vol. 24, Nos. 4 and 5, which is an important contribution to the study of hereditary syphilis. The mortality among the children is high, 63.5 per cent. from syphilitic mothers; 57 per cent. from non-syphilitic. Several instructive instances are related of inheritance of post-conception infection, and one of the still disputed *choc en retour*. Tardy symptoms after the first year were seldom noted. Four healthy and five diseased children were born in nineteen cases of simultaneous conception and infection, the rest aborted. Fourteen children inherited syphilis in thirty-one cases of tertiary diseases. The effect of treatment

before and during pregnancy is also studied.—*Cbl. f. Chir.*, Aug. 4.

**Thymol in the Treatment of the Fever of Tuberculosis.**—E. De Renzi (Medical Week, Sept. 10. 1897.) find that thymol is a valuable remedy in the treatment of this often obstinate and troublesome symptom. He finds it to be of distinctly greater value than quinine, antipyrin, acetanilid, and sodium salicylate, as unlike these the thymol has no depressing effect. It is administered in four-grain doses in the form of a powder enveloped in a wafer. These may be given three or four times a day and gradually increased in frequency until sixty or seventy grains are given each day. He finds that tuberculous patients are very tolerant of large doses of thymol and that it is well borne by the stomach, it seeming to favor digestion.—Medicine.

**Treatment of Burns.**—Burns in which the skin is blistered, but not broken may be very satisfactorily treated by means of a thick paste of bicarbonate of sodium and water spread upon the parts. By means of osmosis the serum is abstracted from the blister as fast as it forms, so that the separated skin soon becomes adherent to the surface beneath, and in the course of



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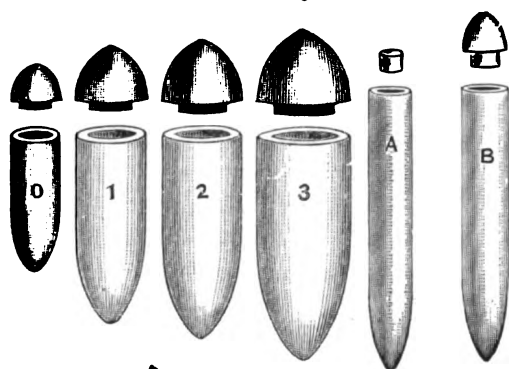
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a day of two the blister will disappear, and in its place will be found a flat surface covered with a thickened skin much resembling a callous. Great care should be taken to avoid breaking the skin, so that the serum beneath will not be infected. So long as an aseptic condition is maintained, suppuration will not take place, and a cure may be accomplished in a few days instead of requiring several weeks. The application of soda also affords prompt relief from pain. Ichthyol may be used in the same manner; it should be painted over the affected part and covered with a thin cloth or tissue paper. The application should be renewed, if necessary, several times daily.

#### **Diet in Chronic Intestinal Catarrh.**—

An exclusive milk diet should have a trial in every case. Skimmed milk can be taken in larger quantities and with less repulsion, and is therefore to be preferred. The exclusive milk diet can be varied with buttermilk, koumiss, or wine-whey; and fruit juices, as orange-juice, lime-juice, or tamarind water, please the patient without doing harm. In the case of adults as well as children the milk is made more digestible by diluting it with barley, or rice-water, or by

adding transformed farinaceous food to milk in the form of Mellin's Food and other foods of this class.—From "System of Medicine," William Pepper, M.D., LL.D.

#### **The Passing of the Family Doctor.**—

The London Lancet has lately expressed its regret at the signs of the wasting prestige and influence of the medical profession. That looks as if the embarrassments that beset physicians in New York were operating in London also. There seems to be some reason to anticipate a time when New York families will contract with a syndicate of physicians, comprising a complete set of the necessary specialists for the supervision of the family health at a fixed annual price.—E. S. Martin in Harper's Weekly.

**Basic Substance in Air.**—There is said to be found in the air a basic substance of which the nature is still to be determined. But Dr. Henry B. Baker says: "This 'basic substance' is soda, as shown by the spectroscope. According to my numerous observations with the spectroscope, sodium is always present in our Michigan atmosphere."—Modern Medical Science.

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Make the wound as dry as possible before applying the final dressing.

Elevate parts that have been wounded, thereby preventing oozing and discomfort.

Ligatures are most frequently too tightly drawn, especially in plastic operations.

Use needles a size larger than seems necessary, and see that they are smooth and sharp.

Wounds about the face may be closed by a subcutaneous ligature, and thus render a scar less likely.

Unless there are special indications aseptic wounds do not need redressing for eight or ten days.

Gauze soaked in 3 per cent. to 5 per cent. warm carbolic acid solution makes a most soothing and efficient poultice.

Spare neither gauze, cotton or bandage in completing a dressing, so that it may be comfortable, efficient and of pleasing appearance.

Dr. Hare says that when a patient has Bright's disease, and requires for any purpose any anesthetic, chloroform should be used, as so little is necessary that the kidneys are not irritated.

Aristol is declared by a competent authority to be far superior to iodoform in the treatment of indolent ulcers and

in many diseases of the ear, nose and throat.

In the treatment of abscess, free drainage is far more important than the use of chemical antiseptics.

In ligating vessels the fine ligature is best so long as it is strong, for the knot is less liable to slip.

Do not drain a healing cavity for too long a time. Your drain may be acting as a seton, actually keeping up the supuration.

A tumor which having existed for a long time suddenly begins to grow, should be regarded with the gravest suspicion. It is probably malignant.

Dermoid cysts at the outer angle of the brow are often taken for lipomata or for wens. These dermoid cysts are not easy to remove, for they are very firmly attached to the bone, often, too, by a wide base.

If you are about to examine a septic case or one where you suspect syphilis, wash your hands in vinegar or dilute acetic acid, and you will soon discover by the smarting any little scratches or abrasions in your skin which might become the starting points of infection.

A wise crusade against the incessant and often avoidable noises of city streets has lately been started by the daily press. The American Medico-Surgical Bulletin says it is to be hoped that this will keep up until some permanent relief is obtained and until some of the offensive noise-makers have learned that they are trespassing on the rights of their fellows.

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WIVES AND MOTHERS ✿



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**The Motherhood Company**

150 Nassau Street, New York City

# Medical Poems.

## The Hustling Doctor.

DR. W. E. WARD, in "Leonard's (Ill.) Medical Journal."

There was a time, long years ago,  
When doctors, so 'tis said,  
Took everything quite leisurely,  
And kept a level head.  
Their movements were deliberate,  
Their speech was slow and calm—  
They gave the sick a confidence  
Which soothed like Nature's balm.

They'd look their patient o'er with care,  
Ask questions, few but plain;  
And wisely, and with reason, too,  
From jokes and gibes refrain.  
'Tis true the treatment was the same  
For nearly ev'ry ill—  
A venesection, then a purge  
With good mercurial pill.

Or else the milder calomel  
With ipecac, perchance;  
And steaming teas, and sweats, and such  
As would the cure enhance.  
But what was done was done right well—  
No hurrying, nervous haste—  
The doctor often stayed right by  
And saw the blister placed.

For men and things in those old times  
Moved slowly and sedate;  
They'd time to think and ponder well,  
And went a sober gait.  
But nowadays 'tis different, quite—  
This age is run by steam—  
Electric wires are cobwebbed o'er  
The town, and land, and stream.

Ours is the age of rapid speed,  
And none can be too fast;  
It's "Every fellow for himself,  
The devil take the last."  
We jump from bed: we bolt our meals;  
We run to catch a car;  
We scorch the streets, or drive like mad;  
We hustle, near and far.

And, like the rest, the doctors, too,  
Are bound to keep the pace.  
And some are "rushed to death," they say,  
When asked, "How goes the race?"  
The gravest case is grasped so quick  
It makes the patient wink;  
A snap-shot diagnosis—then,  
Some tablets, white or pink!

'Tis even said that some will run  
From early morn till late  
To patients, that, tho' they be few,  
Receive attention great!  
And surgery, O, noble art  
And science! has become  
A rapid business, or, at least,  
'Tis practiced so, by some.

In larger towns the ambulance  
May oft be seen to-day,  
With clanging gong and equine dance  
And uniformed display.  
E'en in Chicago's busy streets,  
The doctor, so 'tis said,  
Has right of way o'er everything—  
The living or the dead!

He scoots along the boulevard,  
Or threads the tangled maze;  
He goes so fast that scorcher, e'en,  
Slow up, and pause, and gaze.  
So, hurrying on, with anxious brow,  
The doctor, up to date,  
Must hustle in and hustle out,  
For fear he may be late.

But yet, sometimes, were truth but known,  
And facts brought to view,  
Th man who makes the greatest rush  
Has least of work to do!  
However, that does not excuse  
A doctor who is slow;  
One must be up and dressed betimes—  
For high as well as low.

The only man who cannot get  
Prompt treatment for his ills  
Is he who owes and will not pay  
Long-standing doctor bills.  
Too long he's scorned the mild request  
To "call and settle soon;"  
He'll get another doctor, for  
He changes ev'ry moon.

But we've a little list,\* you know,  
For fellows who do that;  
He'll soon find out, beyond a doubt,  
He's talking thro' his hat!  
So, after all, 'tis said, with truth,  
Our method is the best—  
The people press the button and  
The doctor does the rest.

\*Delinquent list.

# When you Break your Thermometer

There is nothing to be done but to secure another; and, naturally, you want a reliable one, and want it cheap, for you know it's going to break, too.

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## Favorite Prescriptions.

These prescriptions are taken from our exchanges of the past month.

### *Gastro-Intestinal Catarrh.*

- R** Creosote pure. .... gtt. iij  
 Seng. .... ℥iv  
**M.** Sig.—A teaspoonful three or four times a day before meals.

### *Pruritus.*

- R** Acid. hydrocyan. dil. .... ℥ij  
 Sodæ baborate. pulv. .... ℥i  
 Aqua rosæ. .... ℥ viij  
**M.** Sig.—Use as a lotion.

### *Chronic Rheumatism.*

- R** Liquor potassi arsenitis. .... ℥ij  
 Potass. iodidi. .... ℥ij  
 Syrup simplex. .... ℥ iij  
**M.** Sig.—A teaspoonful in water three times a day.

### *Hyperchlorhydria.*

When the gastric juice contains an excess of hydrochloric acid, Boas indorses the action of the following mixture, recommended by Wolff:

- R** Sodium sulphate. .... ℥ i  
 Potassium sulphate. .... ℥i¼  
 Sodium chlorate. .... ℥ i  
 Sodium carbonate. .... ℥vj  
 Sodium borate. .... ℥iiss

**M.** Sig.—Half a teaspoonful in a halfglassful of water three times a day.

### *Scarlatina.*

- R** Tinct. ferri chlor. .... ℥ij  
 Potass. chlor. .... ℥j—ij  
 Syr. simplicis. .... ℥iv  
**M.** Sig.—A teaspoonful every hour or two to a child of four or five years.

### *Whooping Cough.*

- R** Tinct. belladonnæ. .... ℥ij  
 Phenacetine. .... ℥i  
 Spts. frumenti. .... ℥iij  
 Fluid ext. chestnut leaves. . . q. s. ℥iij  
**M.** Sig.—From ten drops to a teaspoonful, according to age of child, every two to six hours, as necessary.

### *For Acute or Sub-acute Cystitis.*

- R** Ext. buchu fl. .... ℥ i  
 Potassii citratis. .... ℥iij  
 Spt. etheris nitrosi. .... ℥ss  
 Syr. limonis. .... q. s. ad ℥iij  
**M.** Sig.—Teaspoonful in water every three hours.

### *For Colic in Infants.*

- R** Tinct. lobeliæ. .... gtt. ij  
 Seng. .... ℥ ss  
 Aquæ distillat. .... q. s. ℥ ij  
**M.** Sig.—Warm the mixture by placing the bottle in hot water, and give a teaspoonful as the occasion may require.

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**THE DUROLEUM CO.,** 73 Park Place  
New York, U. S. A.

## At the Doctor's Expense.

"What were Murphy's last words?"

"Faith, he didn't say any—he died too sudden."

---

Guest (at a country inn): It does seem rather strange, landlord, but it really appears to me the eggs were fresher in London.

Landlord: But that is only a prejudice, sir. It is from London we get them.

---

Doctor (just arrived at the scene of the accident: What on earth are you holding his nose for?

Pat (kneeling beside the victim): So his breath won't leave his body, of course.

---

"A man dropped his wig on the street, and a boy who was following close behind the loser picked it up and handed it to him. 'Thanks, my boy,' said the owner of the wig. 'You are the first genuine hair restorer I have ever seen.'"

---

Teacher: Who's sick at your home, Peter?

Peter: No one.

Teacher: Why, I thought I saw the doctor's carriage at your door this morning.

Peter: You did! He was there trying to collect a bill.

---

"And what is to be subject of your lecture to-morrow night, professor?"

"Well, my dear young lady, I can hardly hope it will have much interest for you. I shall lecture on 'sun spots.'"

"O, but that's of the greatest interest to me. I shall certainly come. You've no idea how I suffer from freckles."

Salesman: You were the lady, I believe, who purchased the cookbook? Will you take this card, please?

Lady: Dr. Pilton. Why do you give me his card?

Salesman: We always give one of his cards to every purchaser of "Ovener's Cookbook." He is very successful in disorders of the stomach.

---

Three men walked into a drug store the other day and one ordered drinks. He and one of the others asked for soda water, and then the clerk turned to the third.

"What will you have, sir?"

The man looked at the one who was treating and said:

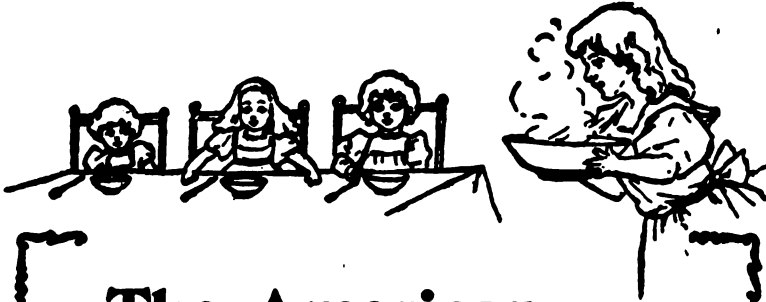
"You know I don't like soda, John." Then, turning to the clerk, he said: "Give me five postal cards."

---

An old Georgia darkey, with his arm in a sling, was talking to another on a West End car yesterday. "Yes, suh!" he said with emphasis. "I gone up now, fur sho'! You see dis arm in de sling, don't you?" "Yes." "Well, suh," the old man continued by way of explanation, "I'll be 80 years old next harvest; I done see lots er trouble in my day, but by de grace er God I miss de Ku-Klux, I miss de Vigilance Committee, I miss de Whitecaps, en I miss de Regulators, but now in my old age, please God, waxinators kitched en cut me."

---

An Irishman refused to pay his doctor's bill, and when asked his reason, replied: "What shall I pay for? Sure he didn't give me nothin' but some emetics, and niver a one could I kape on me stomach at all, at all."



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**IT HAS GAINED A WIDE REPUTATION**, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

**ITS CURATIVE POWER** is largely attributable to its stimulant, tonic and nutritive properties, by means of which the energy of the system is recruited.

**ITS ACTION IS PROMPT**, it stimulates the appetite and the digestion; it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy, *hence the preparation is of great value in the treatment of mental and nervous affections.* From the fact also that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

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